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COLLEGE AND UNIVERSITY LIBRARY PROBLEMS

WORKS

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1935

COLLEGE AND UNIVERSITY LIBRARY PROBLEMS

A Study of a Selected Group of Institutions Prepared for the Association of American Universities

by

GEORGE ALAN WORKS

Introduction by

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THIS STUDY WAS FINANCED
BY THE CARNEGIE CORPORATION
OF NEW YORK

CHICAGO
AMERICAN LIBRARY ASSOCIATION
1927

PRINTED IN THE U. S. A.

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Introduction

SINCE the beginning of the twentieth century American colleges and universities have undergone an essential transformation. The enormous growth in the number of students has been accompanied by changes of function and of method less generally appreciated but no less significant. The body of knowledge with which higher institutions are called upon to deal has been vastly augmented. The natural sciences have had an especially rapid development. New methods both for the creating and the imparting of knowledge in these fields have been devised. The technical application of the sciences to professional pursuits has enlarged the scope of professional training. To meet these new demands in pure and applied science, universities have spent immense sums for laboratories and apparatus, and the annual expenditure for such physical equipment continues to increase. Undergraduate instruction in the humanities has likewise been radically modified. The single textbook has given way to a wide range of reference material, and the increasing output of scholars tends to make existing materials quickly obsolete. Most important of all, graduate instruction and research are no longer mere by-products. They have become a major activity of universities, involving nearly all the members of the teaching staffs and a rapidly growing body of mature students.

It is obvious that these changes have completely altered the position of the university or college library. Demands are now made upon it that twenty-five years ago were unknown. Has it been able to keep abreast of these? Has its support increased proportionately with its obligations? In the gradual formulation of a satisfactory technique for the administration of the great university, has the problem of the library been adequately considered? Have its needs, physical and other, been forecast, and has provision been made to meet them as they arise? Many university librarians have been convinced that all these questions should be answered in the negative.

In the autumn of 1924 a group of representative librarians presented to the Committee on Administrative Units, a subdivision of the Educational Research Committee of the Commonwealth Fund, a memorandum[1] citing the facts summarized above and asked that committee to recommend to the Commonwealth Fund the desirability of financing a study of the administrative problems of the libraries of the larger institutions of higher learning. The memorandum advised further that the study be made by some person or persons experienced in educational investigation and not actively connected with the conduct of a library. The Committee on Administrative Units recognized the importance of the project but was of the opinion that the proposed study lay outside the proper field of its own investigations. It authorized its chairman, however, to bring the request to the attention of the Carnegie Corporation which had already subsidized a number of studies dealing with various phases of library policy and administration. The president and trustees of the Carnegie Corporation were impressed by the timeliness of the project. After consultation with the officers of the Association of American Universities, the trustees of the Carnegie Corporation appropriated to that Association a sum sufficient to enable the latter body to sponsor the investigation and to publish the findings.

George A. Works, who at the time of the investigation and writing of the report was chairman of the Division of Education at Cornell University and is now dean of the Graduate Library School at the University of Chicago, and the undersigned were requested to make the investigation and were instructed to associate with themselves an advisory committee composed of college and university librarians. The membership of the Advisory Committee is as follows:

William W. Bishop, Librarian of the University of Michigan
Andrew Keogh, Librarian of Yale University
Sydney B. Mitchell, Associate Librarian of the University of California
Azariah S. Root, Librarian of Oberlin College
Frank K. Walter, Librarian of the University of Minnesota

Following the advice of this committee, the study has been limited to the consideration of such phases of the library problem as are of primary interest to administrators and officers of instruction in colleges and universities. No attempt has been made to analyze the technical processes of library service. With the committee's advice, likewise, the following group of institutions was selected for investigation:

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[1] The presentation of this memorandum was based on a discussion of the problems of the college and university library extending over a period of nearly a year. The inception of the study was really based on a letter, presented to the committee by President Coffman, in which were embodied suggestions made by Frank K. Walter, librarian of the University of Minnesota.

University of California
University of Cincinnati
Columbia University
Cornell University
University of Illinois
Iowa State College
State University of Iowa
University of Michigan
University of Minnesota
University of North Carolina
Oberlin College
University of Oregon
Rutgers University
Stanford University
Syracuse University
Tulane University
Vassar College
Yale University

These institutions were chosen because together they were believed to be broadly representative of the principal types of large colleges and universities and of the conditions prevailing in the various geographical areas of the United States. Not all of them were able to furnish the desired statistical material but all were visited and examined.

The report which follows has been prepared by Mr. Works. Neither the undersigned nor the Advisory Committee had a hand in it except as consultants. The undersigned has, however, reviewed with Mr. Works all the findings and supports all the recommendations. It should be noted that the study does not cover all of the problems indicated above. Certain phases have been omitted for reasons that appear in the text of the report.

The Advisory Committee has held four meetings, two during the organization of the inquiry, one when the field work had been completed, and one to review the final draft of the report. The main features of the report as now presented have the committee's endorsement.

All who participated in the study are persuaded that many phases of the service rendered by the modern university library are not generally understood by administrative officers and faculties. They hope that the facts here reported and the interpretations which the investigator has placed upon them will contribute to a better comprehension of this vital central organism, on the proper functioning of which the success and progress of every university so largely depends.

Grateful acknowledgment is made to members of library staffs and faculties and the financial officers in the institutions included in this study. Their assistance was indispensable. In all cases it was freely and cordially given.

SAMUEL PAUL CAPEN

Summary

CHAPTER 1, METHODS USED IN STUDY

This chapter is devoted to a brief outline of the methods employed in the study. The data were collected through the business offices and by interviews with members of library staffs and faculties.

CHAPTER 2, GROWTH AND FINANCIAL SUPPORT

The available data show that the period from 1900 to 1925 was one of marked expansion in the material resources of college and university libraries. In general the growth in number of volumes has been at as rapid a rate as the increase in size of student body. This does not necessarily mean that the library resources are adequate. In answering this question it should be borne in mind that changed methods of instruction have greatly increased the demands on the library. The movement has been from almost complete dependence on the textbook and the lecture to a large use of collateral reading. During recent years additional burdens have come to the library by the introduction of honor courses and other devices designed to place more responsibility on the individual student.

In the last quarter of a century there has been a large development of research and of graduate instruction in the universities. This has greatly increased the responsibilities of the library. Providing the printed material for an undergraduate student body is relatively a simple problem as contrasted with the development of the resources needed for faculty research and graduate instruction in the modern university.

In meeting the demands of instruction and research, as well as in fostering the general reading of the student body, the libraries have had to face serious difficulties. Salaries and the costs of books, periodical literature, and bindings have increased very greatly.

CHAPTER 3, COOPERATION IN THE DEVELOPMENT OF LIBRARY RESOURCES FOR RESEARCH

The demands for certain fields of research are so limited and the resources in others so meager that increased attention should be given to cooperation in the development of library resources. This is an undertaking in which the primary responsibility does not rest with librarians. It must be agreed upon and inaugurated by faculties and boards of trustees. Librarians, however, would have an important responsibility in the execution of policies that might be agreed upon by officers of instruction and administration.

CHAPTER 4, COLLEGE, SCHOOL AND DEPARTMENTAL LIBRARIES

There appears to be a well-defined movement under way that is designed to make for a centralization of library service in universities. This does not necessarily mean that there will be a consolidation of the printed resources in a central library building. Rather it is a movement that is designed to place the responsibility for handling the library resources in the hands of the librarian. The tendency seems to be away from small and relatively inaccessible collections toward larger and readily available collections. An organization of this kind calls for a close cooperation in its development between the library staff and the faculty.

CHAPTER 5, THE STATUS OF THE PROFESSIONAL STAFF

The college or university library that is adequately discharging its responsibilities must have a professional staff composed of persons of good native ability and with appropriate technical training. The growth in importance of this staff has been very marked during the past twenty-five years. In many institutions there has been failure to give adequate consideration to the status of this group of workers. The data collected for librarians, associate and assistant librarians, and heads of library departments show in the period from 1910 to 1925 that salaries have improved materially. However, this is not the only factor to be considered. In length of vacation periods, attendance at professional meetings, opportunities for advanced study, and retirement allowances, in some institutions, members of the professional staff of the library are placed on the basis of clerical workers rather than on a basis that is comparable with that of officers of instruction. The needs of this group should have more adequate consideration on the part of administrative officers than they are receiving in many institutions.

CHAPTER 6, PROBLEMS OF MINOR IMPORTANCE

In this chapter are grouped a number of problems that appear to be of relatively minor importance. The topics dealt with are: time required for binding periodical literature; classification; time required to obtain books; reserved readings; changes in library staffs; establishment of new fields of instruction; the experiment in the use of the library that is under way at the State University of Iowa; and seminar rooms.

CHAPTER 7, SOME POSSIBLE ECONOMIES

The writer believes that there are relatively few opportunities for librarians to effect economies in the conduct of their work. Some suggestions are made regarding possibilities of developing more adequate service with the funds available.

CHAPTER 1

Methods Used in Study

As a preliminary step in this study several annual reports of university librarians were examined for the purpose of determining the problems stressed by them. A general survey was also made of the literature dealing with the administrative problems of college and university libraries. Following these preliminaries three weeks were spent in visiting five college and university libraries for the purpose of getting a general view of the library situation in them and determining what data bearing on the problems were available.

With this background forms were prepared for reporting data on the growth of various types of library service and on the financial support of the library. Forms were also prepared for collecting information on other college and university expenditures. During the progress of the field work a conference was held at each institution with some one in the business office so that an understanding was reached on what was desired from that office.

There was also prepared a form for collecting information regarding the organization and administrative problems of the library from the point of view of the library staff. At each institution, with one or two exceptions, conferences were held, not only with the librarian and the associate or assistant librarian, where there were such positions, but with the heads of the departments in the library, persons in charge of the departmental or college libraries, and, in many cases, with members of the library staff who were in subordinate positions. Time did not permit of individual conferences with all members of the professional library staff. In one or two instances, however, discussion with all the members of the staff was made possible through group conferences.

A form was prepared for the purpose of securing the views of faculty members on the library. These data were obtained through individual conferences. The faculty members were chosen with the assistance of the librarians, administrative officers, and other faculty members. An effort was made to secure the views of those in both major and minor teaching positions. However, a majority of those interviewed were in major positions. In several institutions where there were library committees of faculty representatives, an effort was made to interview most or all of the members of such committees. A deliberate attempt was also made to locate some of the most outspoken faculty critics of the library. Usually this was not difficult.

In the original plan interviews with students, especially advanced students, were contemplated. Experience soon showed that this procedure could not be carried far enough in the time available to accomplish anything worth while. It was therefore abandoned. Several different devices were tried out for the purpose of gauging student sentiment with reference to the library, such as conferences with groups of students, submitting to students a list of topics bearing on the relation of the library to their work, and giving students opportunity to make constructive proposals relating to the library. None of the results of these efforts are reported in this study. However, they were of such character as to make it evident that librarians can secure from this source some very helpful suggestions. They could get evidences of student sentiment by obtaining the cooperation of faculty members dealing with groups of students at different stages of advancement in their undergraduate work. These views might be obtained with reference to changes that either have been made or are contemplated, or with reference to the library service as a whole. To encourage frank expressions of opinion on the part of the students, the statements may well be handed in without signatures, or some other device used so that the writer's identity will be known to the cooperating faculty members only. Some use is being made of devices of this nature.

The preliminary work done preparatory to the field work convinced the writer that on most points involved in the study there was little if anything to be gained by direct comparisons among the institutions. The great differences in the conditions in the institutions are very likely to lead to erroneous conclusions. Furthermore, the definitions of terms vary greatly with institutions. An attempt was made to obviate this difficulty by formulating definitions that should be followed in collecting the data. This procedure proved impracticable as the records of the institutions were not organized so as to make it possible. It seemed better, therefore, to accept terms and classifications as they were used and to determine the trends for each institution. The important consideration in many of the more significant problems seemed to be that of getting an estimate of what changes, if any, were taking place and the extent of these changes.

With this idea in view, many of the forms were prepared with the intention of making the study cover the period from 1875 to 1925, inclusive. Some of the institutions were able to furnish the data for that period but most were not. When the available data were reported it appeared to be wiser to confine most phases of the study to the period from 1900 to 1925. Some of the data obtained for the earlier period have been recorded in Table B, Appendix, so that they might be available. No use of them has been made in the discussions that follow.

After the reports from the institutions were received, they were checked for discrepancies. In those cases where disparities were found between comparable portions of the reported data, they were returned to the librarians for correction. After the tables were compiled, they were all submitted to the institutions for correction of such errors as the authorities were able to detect. The tables that were found to have errors were checked and returned to all the institutions. Finally, the galley proof of the completed report was sent to each librarian[1] and if mistakes were detected, the corrections were made. In spite of these precautions, errors undoubtedly still exist but these are not believed to be of great moment.

The writer has been greatly impressed with the marked differences that exist among the institutions with reference to the conception of the part that the library should play in the life of the university. This is not by any means entirely a matter of the ages of the institutions compared. In a few cases old institutions have only recently awakened to a realization of the importance of the library. In other cases, relatively recently founded institutions came early to a realization of the importance of the library and took steps to put their libraries in position to discharge their responsibilities. From the data collected and from many impressions that have been gained through this study, the writer believes that the next twenty-five years will witness an even more impressive development of the responsibilities of the university library than has taken place during the last quarter of a century.

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[1] Revised galleys were not obtained from Illinois and Oberlin.

Acknowledgment should be made of the assistance rendered the writer by four of his colleagues. Olga C. Anderson has checked the data and borne the responsibility for the preparation of the tables; the index was prepared by Pearl H. Clark; Thomas L. Bayne prepared the graphs; and Emery N. Ferriss read the copy and made many helpful suggestions.

CHAPTER 2

Growth and Financial Support

FUNCTIONS OF THE LIBRARY

A BRIEF statement of the primary functions of the college or university library should constitute a background for the consideration of the subject indicated by the title of this chapter. The main responsibilities of the libraries included in this study centered around three things. These were to:

1. Facilitate and encourage research at least to the extent of securing the necessary printed resources when practicable. This statement is always subject to the reservation that the lines of research for which materials are being gathered are in harmony with the objectives of the institution. The implications of this statement are developed in Chapter 3.

2. Facilitate the work of teacher and student in the processes of teaching and learning. This includes not only the instructional work for undergraduates but also special reading rooms and printed resources for such course work as graduate students may be doing in institutions having any considerable number of them. There are several universities included in this study in which this is a major problem of the library.

3. Offer opportunities for the general or "cultural" reading of student body and faculty. For the undergraduate rarely if ever to go beyond the reserved reading, or specific class assignments, is recognized by most librarians as unfortunate. They are making more or less effort to have the library stimulate breadth of reading on the part of the student body. The special reading room such as the Arthur Upson room in the library at the University of Minnesota is an example of one kind of effort designed to realize this purpose.

Naturally the relative importance of these functions varied among the different institutions studied. Presumably, the university librarian will be much more interested in the first one than will the college librarian. But even within the group of institutions called universities, the extent to which the libraries were attempting to serve research was found to vary greatly. In some the development of research is still in its initial stages.

Most of the university libraries included in this study devote a large proportion of their resources to meeting the needs of undergraduates. As a result they have the same responsibility as colleges for meeting the study needs of undergraduates and for facilitating the work of the instructional staff with this group of students. In many of them this phase of their work has become very complex in recent years as a result of the rapid increase in the size of the student body. This rapid growth has made much more difficult the handling of reserved books and the providing of duplicates. In addition the libraries in many of the institutions were found to be under the necessity of furnishing special study facilities and books for the work of the professional schools and for the course work of graduate students.

The attention given to the third function mentioned naturally varied with the importance the librarian attached to it. All were making some effort to cultivate the interest of the student in general reading. This they did by special announcements, exhibits, and by placing special collections of general readings in departmental or college libraries.

PURPOSES OF THIS CHAPTER

One of the main purposes of this chapter is to present data showing the increase in book resources and the expansion in various types of service that libraries are making in order that the three functions described above may be adequately discharged. In addition to showing something of the growth in size of the libraries, it is the purpose of this chapter to present certain data that show some of the increases in the complexity of the problems that have come to college and university libraries in their attempt to discharge their functions. Data are also reported on the financial support of the libraries for the purpose of giving some idea of the resources of the libraries in meeting the demands made on them.

DIFFICULTIES MET IN STUDY

Certain difficulties were encountered in carrying out these plans that prevent the presentation of as complete information as was contemplated in the original plans. These plans are set forth in the introduction. As has been stated in Chapter 1, it seemed that the best method of approach to the problem was by determining the trends in growth of printed resources, service, and support for each institution.

The original plans, therefore, called for collecting the data on most phases of library service for the last twenty-five years at least. In some institutions the desired information was not available at all. In others it could not be had for the full length of time. The obstacles to securing the desired financial data were insurmountable in some cases as the records had not been kept on bases that made it possible for the business office to furnish them in the desired form. In other cases the changes in methods of accounting did not make the data comparable throughout the period.

Differences in terminology also presented a problem. Even in the case of what would appear to be a simple matter, viz., the reporting of the number of volumes added annually, there was some difficulty. This was due to the differences in the definitions of what constitutes a volume. The definitions given on page 117 show the variations in the libraries included in the study.

DANGERS OF MAKING DIRECT COMPARISONS

Direct comparisons made between institutions are certain to be more or less misleading unless the things compared are defined and measured in the same way in each institution. Where practicable the data were gathered on the basis of a common interpretation of terms. However, not all institutions were in position to report the desired data in accord with the definitions that were formulated. To minimize this difficulty the results reported in this chapter have been so organized as to show the trends in the several institutions with reference to the factors studied. This method makes it possible even with differences in meaning of terms and with differences in practices to get an idea of the relationships among different factors in the given institutions. These trends may then be compared for the purpose of discovering the extent to which there is a similarity with reference to them among the institutions.

FIG. 1. RELATION BETWEEN THE INCREASE IN THE SIZE OF STUDENT BODY AND THE NUMBER OF VOLUMES IN THE LIBRARY. (SEE TABLE A)

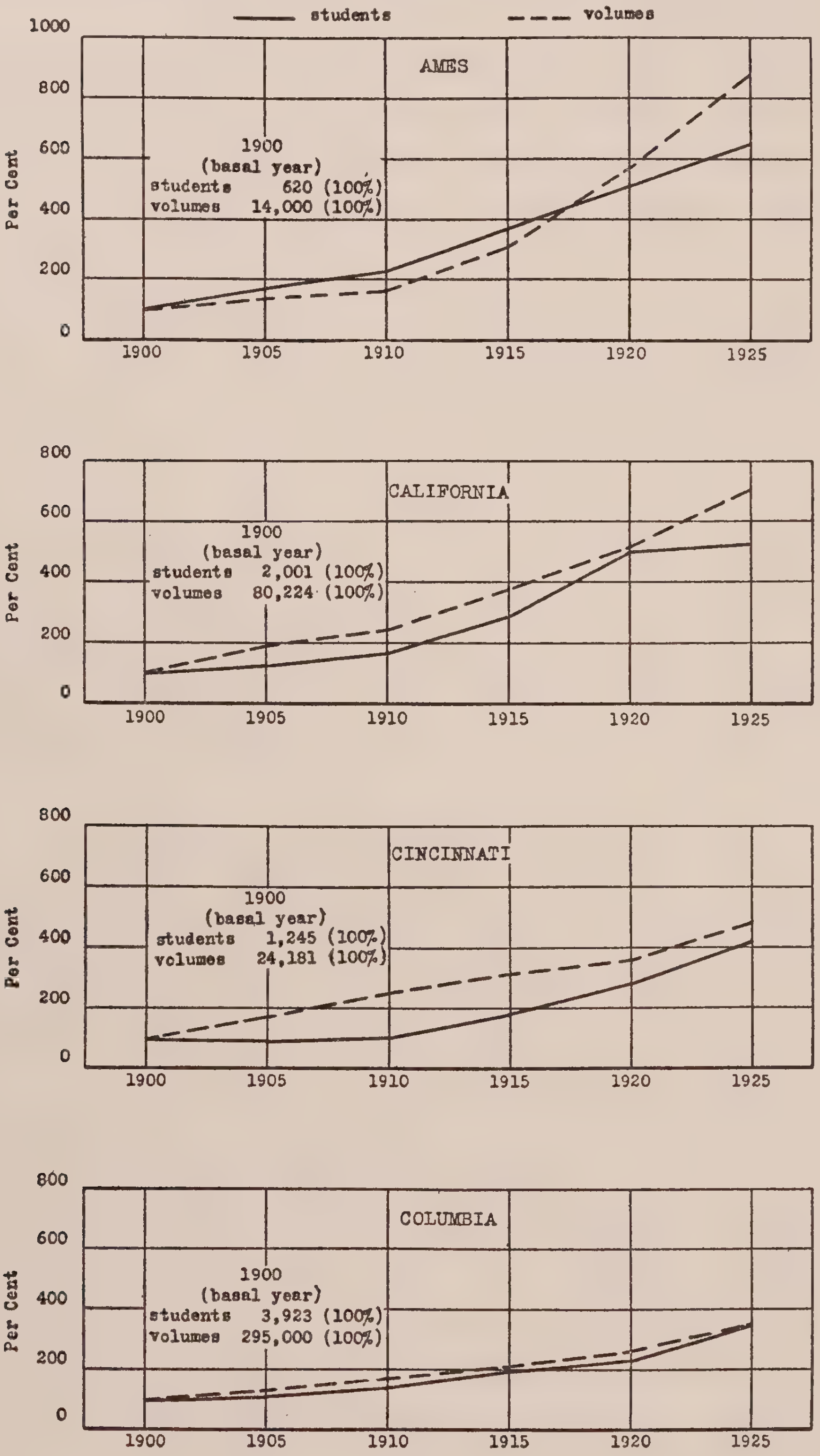


FIG. 1—*Continued.* RELATION BETWEEN THE INCREASE IN THE SIZE OF STUDENT BODY AND THE NUMBER OF VOLUMES IN THE LIBRARY. (SEE TABLE A)

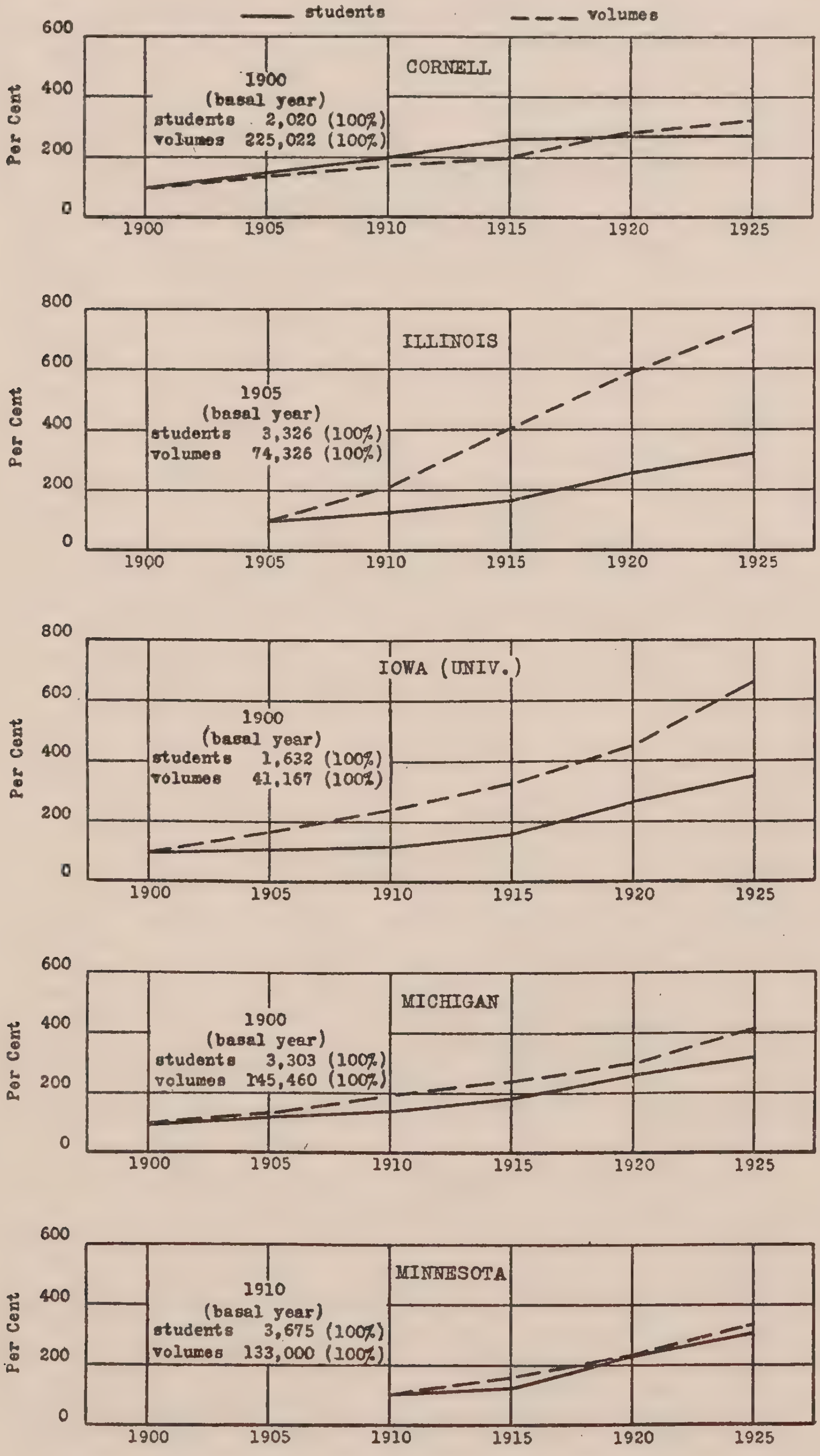


FIG. 1—*Continued.* RELATION BETWEEN THE INCREASE IN THE SIZE OF STUDENT BODY AND THE NUMBER OF VOLUMES IN THE LIBRARY. (SEE TABLE A)

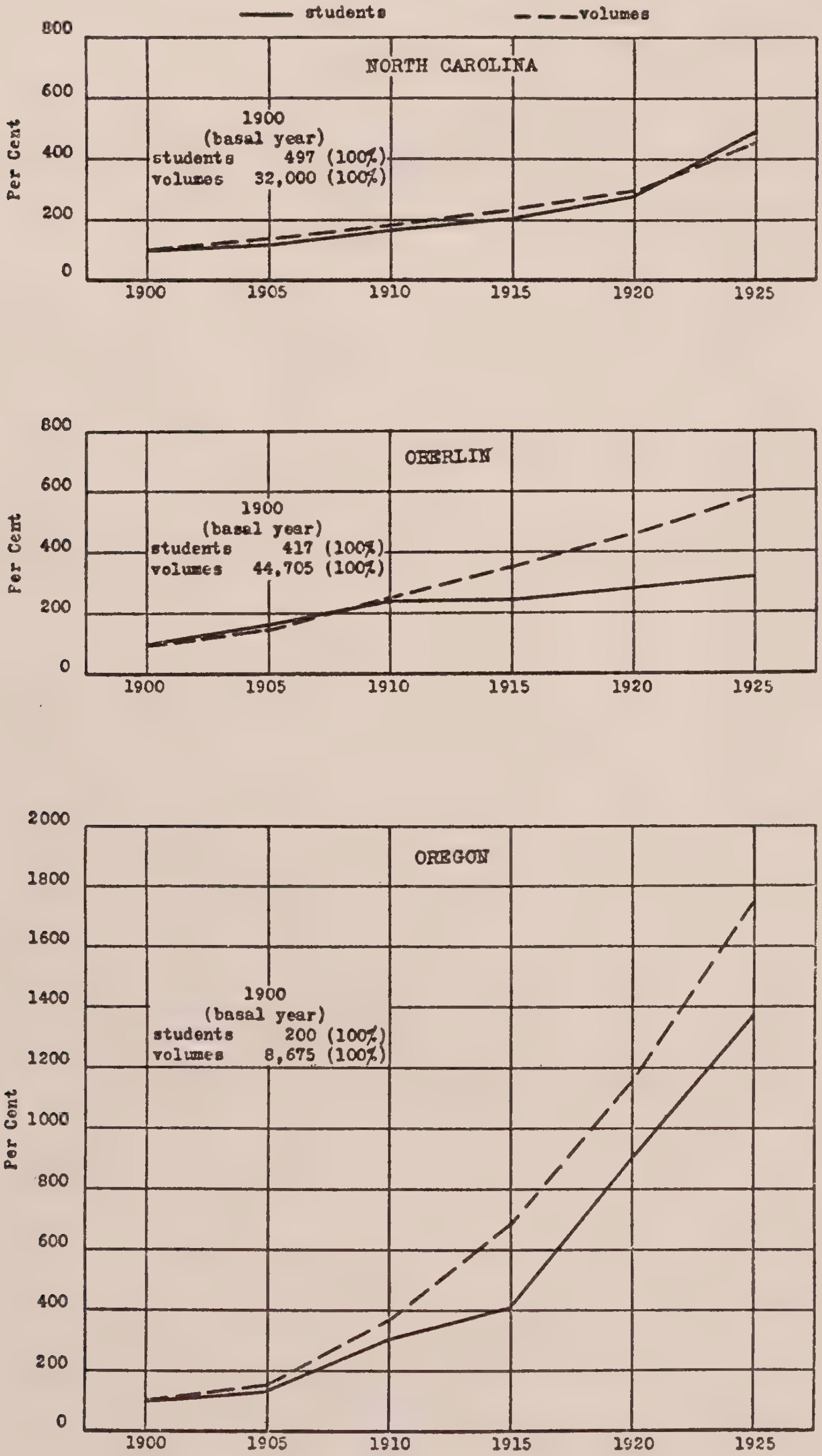
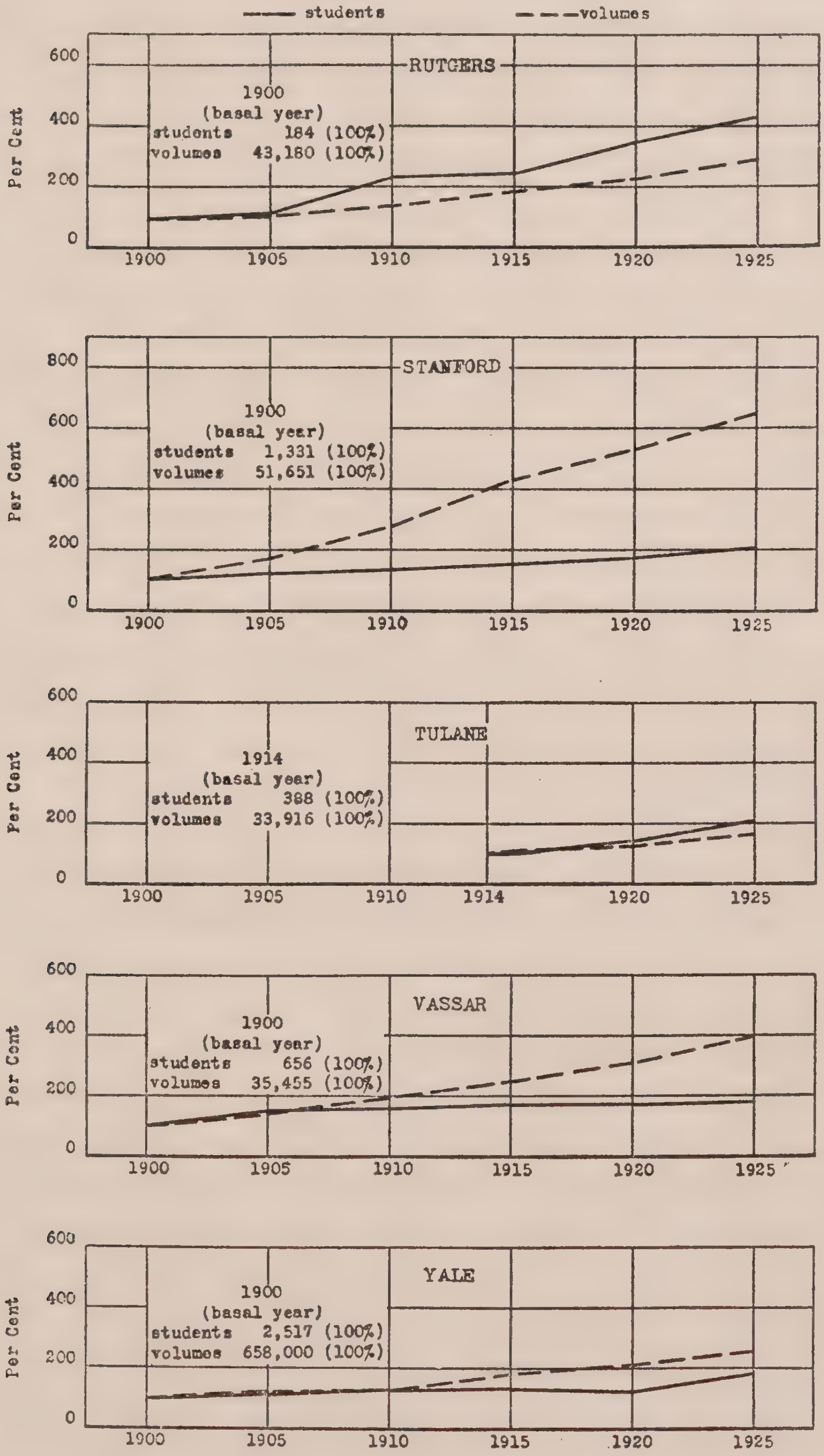


FIG. 1—*Continued.* RELATION BETWEEN THE INCREASE IN THE SIZE OF STUDENT BODY AND THE NUMBER OF VOLUMES IN THE LIBRARY. (SEE TABLE A)



GROWTH IN VOLUMES AND IN STUDENT BODY

It was relatively easy to obtain data on the growth in the number of volumes in the library and in the size of the student body. Graphic representations of these relationships on the basis of percentages of increases for each of the institutions are shown in Figure 1. The numerical increases may be obtained from Table A, Appendix. It will be observed that with three exceptions the number of volumes has increased more rapidly than has the student body. In these three institutions the printed resources are relatively not as great as they were at an earlier period in their histories. In the other institutions the present situation should be interpreted only as meaning that as compared with conditions in 1900 the libraries now have a greater number of books per student. It does not mean that at the present time they have adequate book resources. All that can be said is that the growth in number of volumes has been more rapid than the increase in number of students. No consideration is given at this point to changes in methods of instruction that have taken place or to the growth in the number of graduate students. Both of these affect this problem.

Another caution seems desirable. Comparisons of the number of volumes per student can have but little significance except in extremes. A number of factors enter to vitiate conclusions that are likely to be drawn. The needs of a college with little or no graduate work are very different from those of a university with a large number of graduate students. In the university the demands for book resources for research are very much greater than those arising from the needs of the undergraduate student body.

Some librarians who have given much thought to this problem have as a result of years of observation reached the decision that a relatively small number of books will meet practically all the needs of an undergraduate college. They place the number at 75,000 to 100,000 volumes for a student body of not more than 2500. They go even further and suggest that there would be a distinct advantage in more or less segregation of these resources in the large universities. This is essentially the method followed at Yale by means of the Linonian and Brothers Library.

The limitations on size that have been suggested for the college library raise the problem of the resulting restriction of the personal research of faculty members in colleges that are not parts of a university. Inter-library loan service would be one means of helping to solve it. Some colleges are so located that faculty members have to travel only short distances to have the use of a library adapted to the needs of their research. Why should not the colleges that desire to stimulate productive work on the part of their teaching staffs bear the expense incident to such travel? A further possibility is to give faculty members who are productive frequent leaves of absence to pursue their researches elsewhere. There seems but little doubt that for many colleges this policy would result in the saving of funds as contrasted with the attempt to meet the research needs of faculty members by the necessary additions to the college library.

However, if it has been decided to transform the college into a university, the above statements would not hold. When such a policy is contemplated the librarian should have notice of the proposed change years in advance so that he may develop the library to meet the new demands that would come with the changed status of the institution.

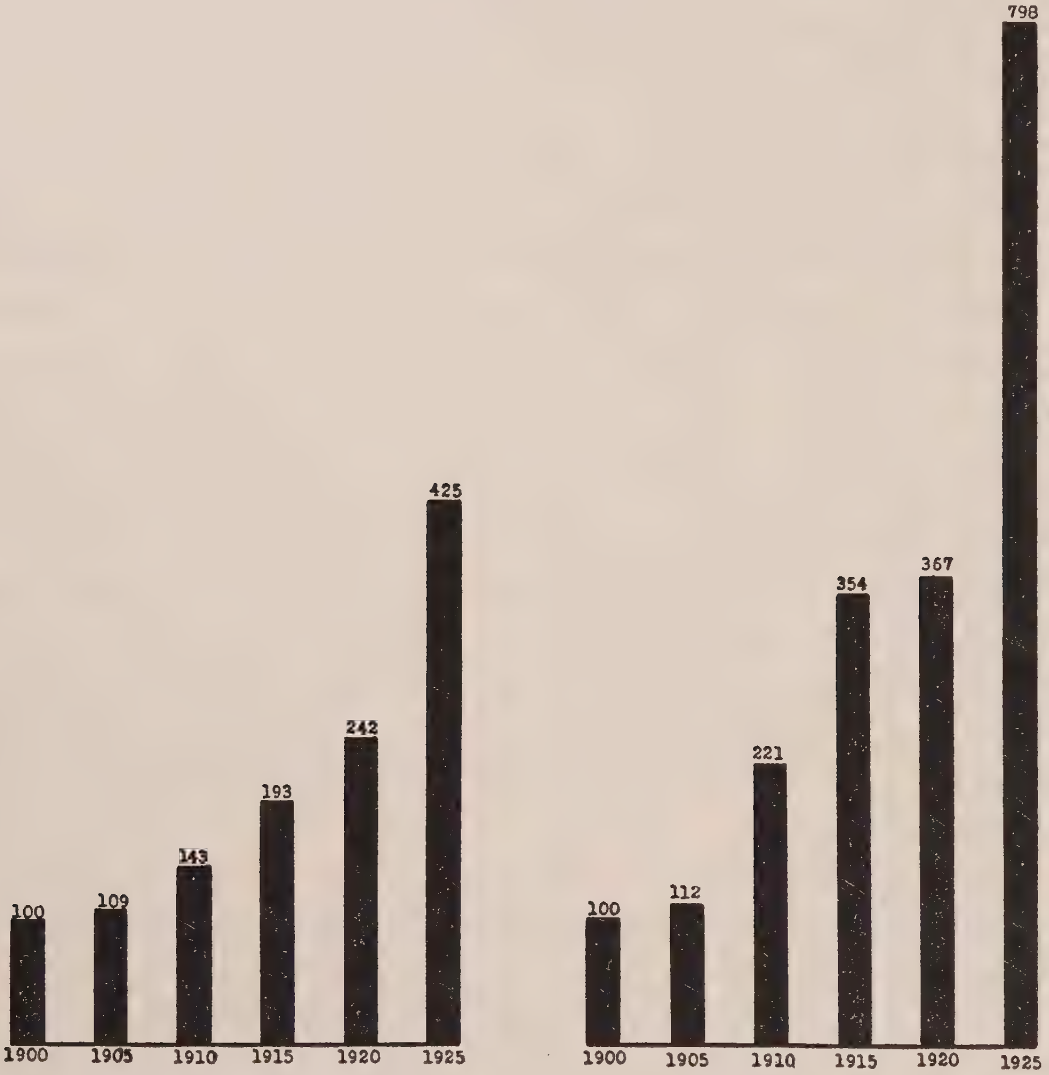
Additional factors that affect the value of comparisons on number of volumes per student are the number of duplicates and the libraries' definitions of a volume. (See p. 117 for definitions.) The growth of duplicates for reserves has been very great in recent years.[1] In some institutions these are included in volumes in the library and in others they are not.

GROWTH IN VOLUMES AND IN GRADUATE STUDENTS

When comparison is made between the growth in number of volumes and the growth in number of graduate students, the showing is not so favorable as when it is made with the increase in the size of the entire student body (see Fig. 2). Thirteen of the institutions included in this study had for the academic year ending in 1925 more than 100 graduate students. In six of these the growth in the number of graduate students has been more rapid than the growth in volumes. It would be extremely dangerous to draw any conclusions pertaining to the relative adequacy of those libraries that have grown more rapidly than the number

[1] See p. 31.

FIG. 2. INCREASE IN THE PERCENTAGE OF STUDENTS IN GRADUATE SCHOOLS. (SEE TABLE C)



Seven institutions having 100 or more graduate students in 1900

Five institutions having less than 100 graduate students in 1900

of graduate students as contrasted with those in which the growth has not been so rapid as the increase in number of graduate students. An illustration in point is the Columbia library which was relatively well developed in 1900.

An additional factor that should have attention in considering the adequacy of a library for research purposes is the extent to which the printed resources are adapted to research needs. It was not possible to get an objective measure of the adequacy of the libraries with regard to this aspect. It is known that in many libraries very large numbers of the additions are duplicates for the reserved readings of undergraduates. It is also known that faculty members frequently mentioned the inadequacy of library resources for their researches as well as for those of their graduate students. The faculty members characterized the conditions by such expressions as:

"The library is entirely inadequate for our research needs. We lack the basic documentary materials."

"On the research side our library is entirely inadequate."

The writer believes that the needs of research should have more consideration than they now receive in several of the universities included in this study. The inadequacies are due in some instances to a lack of funds but in others they result from the handling of purchases in a manner that is not designed to make readily possible the securing of the basic materials necessary for research. In several of the institutions it has been recognized that the allocation of all or most of the library funds to departments makes it difficult if not impossible for the library to give research workers the printed resources as special needs arise. To meet this problem it is customary in some libraries to hold back several thousand dollars for the purchase of materials calling for larger expenditures than a department could make with its allotment. Sets or special collections much needed for strengthening the resources for research, regardless of whether or not they may be needed for pieces of research that are actually in progress, are also bought from this fund.

Two or three institutions were found in which the graduate school had a fund that could be used to meet the special needs of research. At Illinois a plan of this kind has been in operation for a number of years. Several thousand dollars are made available to the graduate school. These funds are used to meet the needs of the research work. Printed resources may and frequently are purchased from these funds for this purpose.

The data of Table C, Appendix, show the growth in the number of graduate students for the period from 1900 to 1925 for thirteen of the institutions included in this study. These data are striking evidence that, if the libraries are to meet the demands of research and the needs of graduate students and faculty members, much attention and ample funds must be devoted to the collecting of materials. This function of the library should have more consideration than it now receives in some institutions that are attempting to serve large numbers of graduate students.

The above statements regarding the development of the research resources of the library should be interpreted in the light of the discussion of cooperation among institutions as it appears in Chapter 3. Ill-conceived programs of library development may result in much waste of funds and energy.

SUMMER SESSIONS

The data on size of student body that have been presented relate only to registrations for the regular academic year. The increase in the size of summer schools has been so marked in some institutions that the library is pressed even more in that session than during the academic year. The most striking data on this phase were obtained from Columbia. The summer session enrollment in 1925 was nearly as large as the total enrollment of resident students in the regular academic year. The 1925 summer school enrollment was 3050 per cent of that in 1900. This development of summer instruction has not only added to the burdens of the library but it has done away with a period that was formerly available for the binding of periodicals, the rebinding of books, and for putting the library in condition for the ensuing year.

GROWTH IN DEMANDS

One cannot examine the data bearing on the growth in number of volumes in the institutions without being greatly impressed by them. They are convincing evidence that the problems involved in purchasing, accessioning, cataloging, storing, and making available these resources to the university community must have increased greatly during the past twenty-five years. The end has not been reached. Certainly the size of the undergraduate student body, the number of graduate students, the size of faculties, and the number of volumes in most institutions will continue to grow. These developments will result in an increased complexity of library problems and a need for larger staffs of good native ability and the best possible general and professional preparation. As is indicated in greater detail elsewhere, it is doubtful if this personnel will be obtainable unless steps are taken to make more appealing, than they generally are at present, certain aspects of the service in the college and university library.

One illustration may give some idea of the increase in complexity of some of the library problems that comes with the growth in size of the library, as well as some notion of the character of the personnel required for a type of work that is likely to be thought of as being routine in character. In one institution the library representative of a college sent to the central library 260 order slips. Inquiry by the central library staff showed the following conditions:

Items in library	28	
Orders on file	20	
Receipts on file	16	
Total		64
Items found to be all right to order:		149
Ordered	100	
Remaining to be ordered	49	
Items unable to locate in trade catalogs		30
Duplications checked out		7
Items located through another source		10
Total		260

The amount of labor required to bring this order for 260 items to the point where 100 items were ordered and forty-nine were in readiness to be ordered was forty-nine hours. This time was spent in checking and rechecking with Library of Congress lists, trade lists, orders, the catalog of the library, and in preparing orders. This work is for the most part of such a nature that it cannot be done by the grade of help usually designated as clerical. Naturally an increase in the size of the library makes such undertakings as this one more complicated.

When one considers the increase in the number of order slips that must be handled in libraries that have grown as most of those included in this study have grown, he has a basis for understanding the need the library has for a service budget that is constantly increasing. The suggestion is frequently made that members of the faculty should check their order lists with such care that the library staff would find it unnecessary to check them. It is not practicable to get faculty members to do this with the necessary degree of care. Furthermore, the writer is convinced that it is more economical to have the checking done in the library than by faculty members. This is certainly true beyond a moderate degree of care on the part of faculty members in preparing the order slips.

RELATION BETWEEN LIBRARY AND UNIVERSITY EXPENDITURES

As far as the available data permitted, a comparison has been made on a percentage basis between growth in total university or college expenditures and the total expenditures for the library. In neither case were expenditures for capital outlays included, unless books were considered capital outlays. They are so considered in some institutions but they were not so treated in this study. The relation between the growth of the expenditures for these two purposes are shown in Table D, Appendix. It will be noted that in general the financial support given the libraries compares favorably with the growth in total university expenditures, not including capital outlays. In the majority of the cases in which the library expenditures tend to lag in contrast with those of the university, the library had reached a comparatively high stage of development by the beginning of the period. Columbia and Cornell are illustrations in point. This was also true in the case of Yale, but in spite of this the library expenditures in that institution have grown more rapidly than the total university expenditures. In several of the cases the relatively rapid rise in library expenditures was due to failure to give the library much consideration until a comparatively recent date. This is shown by the size of the base number. Illustrations in point are Iowa (Univ.), North Carolina, and Tulane.

Reference to page 117 shows that the items included in total university expenditures vary greatly with institutions. Expenditures for maintenance of dormitories are an important factor in some institutions. Items of this kind do not necessarily bear any intimate relation to the demands that are made on the library. These differences are so marked as to lead the writer to believe that relatively little weight should be given to this comparison.

The expenditures for teaching salaries in some respects are a more exact measure of a kind of growth that should be closely related to the demands made on the library. Such a comparison is made in Figure 3 and in Table E, Appendix. In Vassar the increase for the two types of expenditures has been at approximately the same rate. In the others, with the exception of Ames, California, Cincinnati, Cornell, and Illinois, the growth in expenditures

FIG. 3. RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND TOTAL EXPENDITURES FOR THE LIBRARY, NOT INCLUDING CAPITAL OUTLAY. (SEE TABLE E)

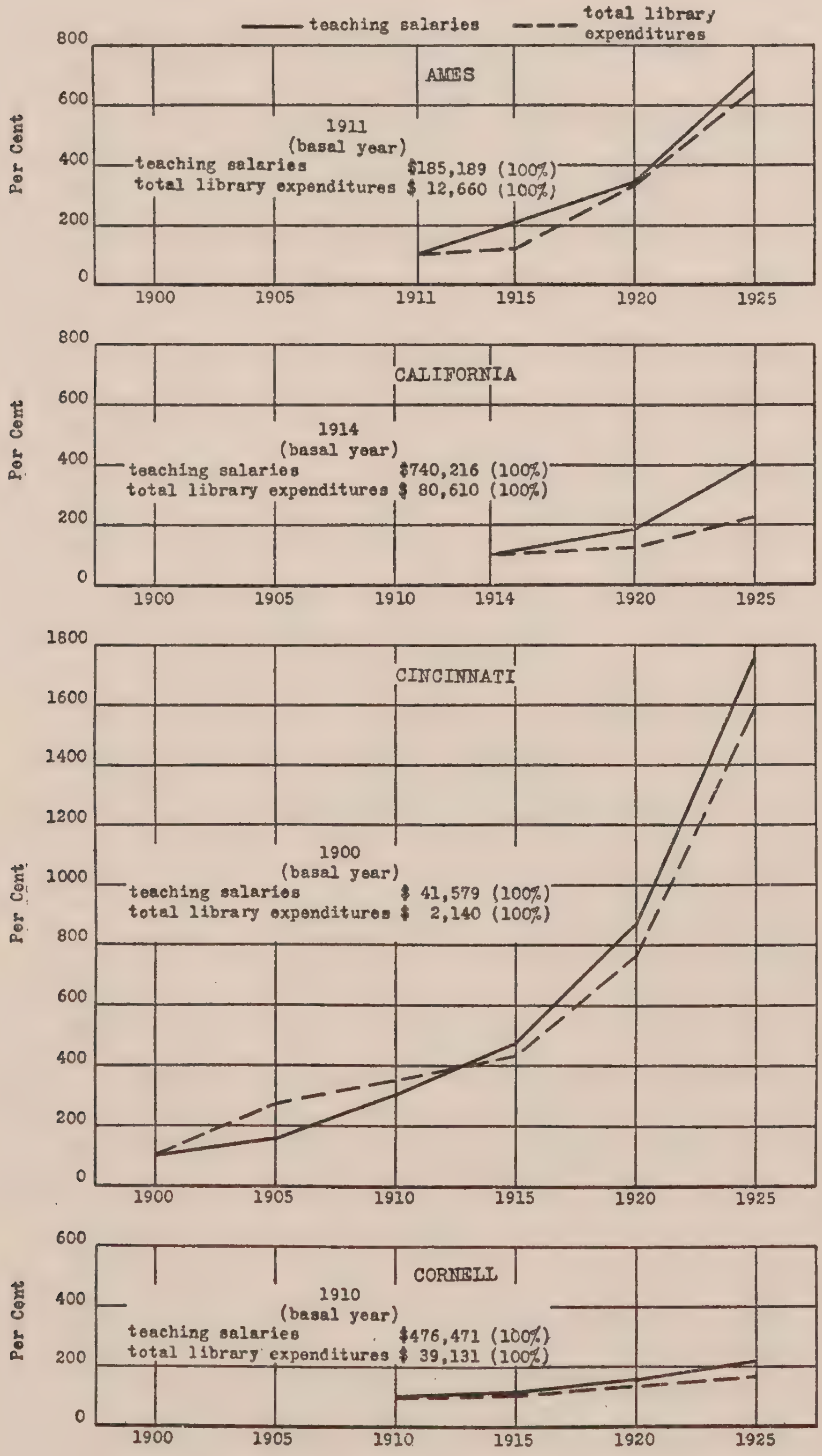


FIG. 3—*Continued.* RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND TOTAL EXPENDITURES FOR THE LIBRARY, NOT INCLUDING CAPITAL OUTLAY. (SEE TABLE E)

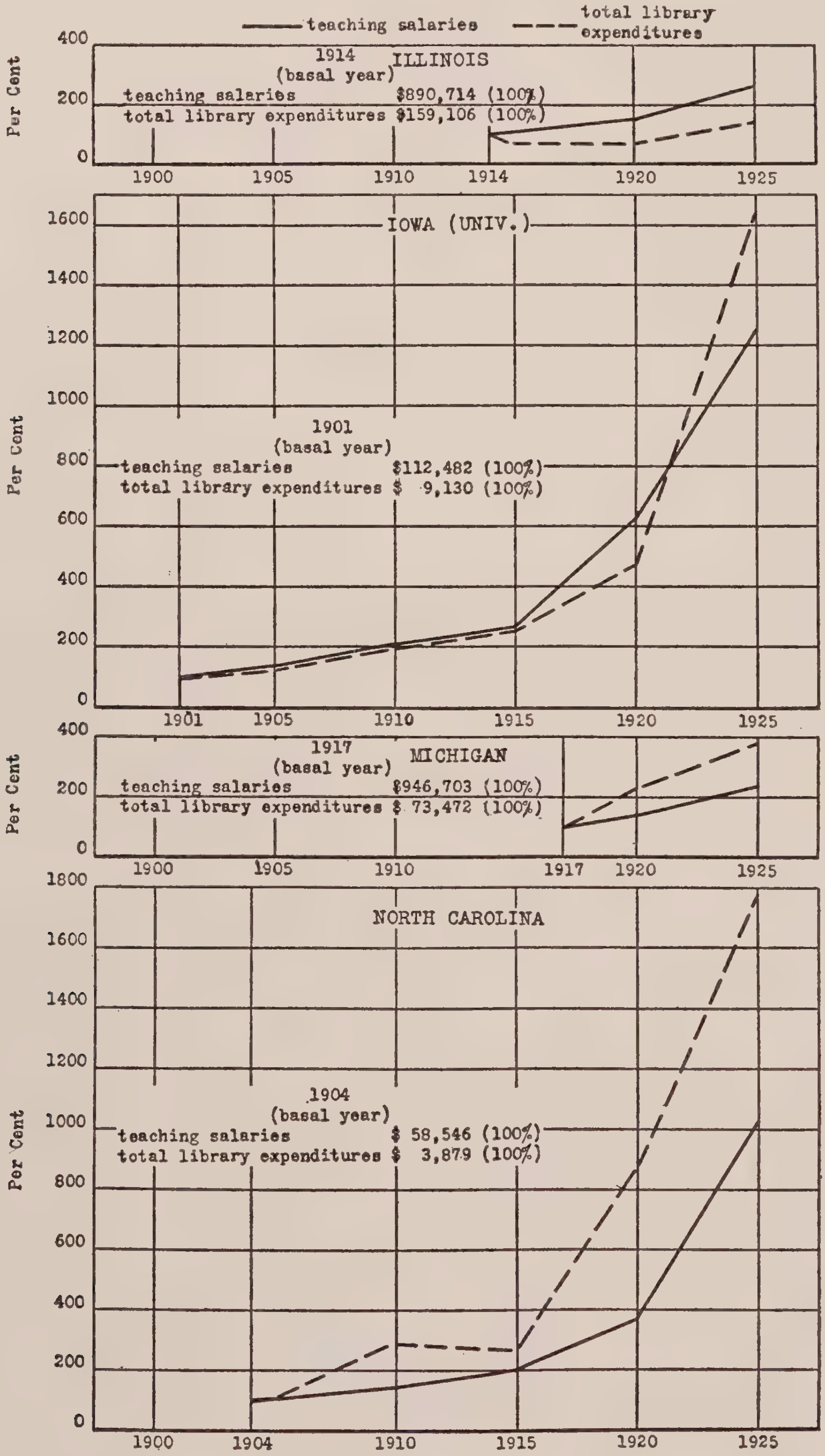
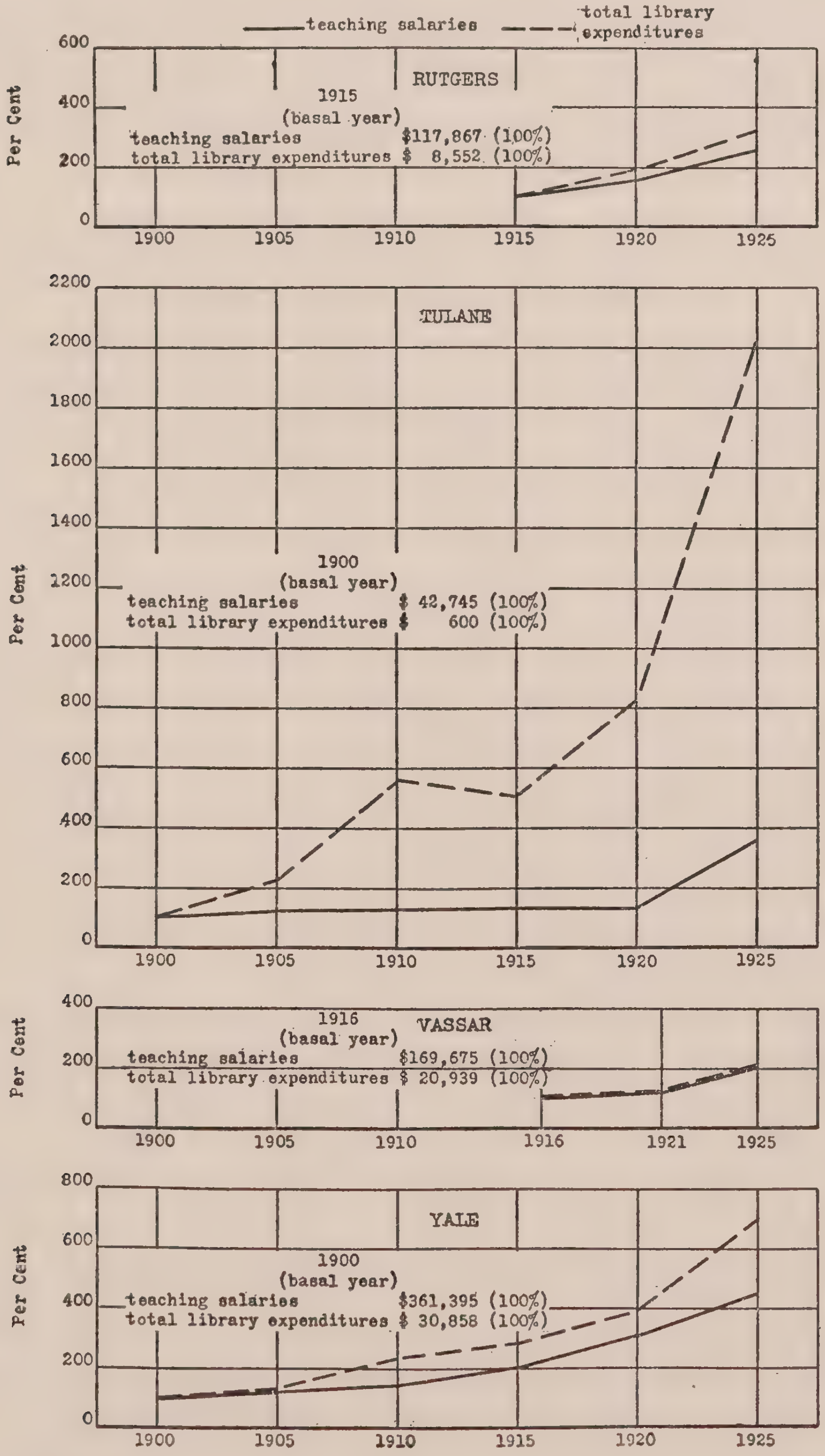


FIG. 3—*Continued.* RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND TOTAL EXPENDITURES FOR THE LIBRARY, NOT INCLUDING CAPITAL OUTLAY. (SEE TABLE E)



for the library has been at a more rapid rate than the expenditures for instruction. The apparent lag in Illinois is largely due to the fact that in the first year for which the data were available there was an unusually large expenditure for books. It was approximately $45,000 larger than during the preceding year. As a result the base number is relatively large. The relatively rapid rise shown by Iowa (Univ.), North Carolina, Rutgers, and Tulane is largely due to a delayed start in giving the library adequate support.

RELATION BETWEEN EXPENDITURES FOR INSTRUCTION AND FOR SALARIES IN THE LIBRARY

An additional measure of the relative support of the library may be obtained by comparing the growth in expenditures for university instruction and for salaries in the library. Data on this phase are shown in Table F (Appendix) and Figure 4. An examination of this table and the graphs reveals considerable variation among the institutions. In seven of the thirteen reporting the expenditures for library salaries have grown more rapidly than the expenditures for university instruction. These institutions are Iowa (Univ.), Michigan, North Carolina, Rutgers, Stanford, Tulane, and Yale. Michigan, Stanford, and Yale have long been recognized as institutions with high standards of library service. The other institutions are illustrations of a rapid but recent growth on the part of the libraries.

It does not necessarily follow from these showings that libraries are receiving as large a proportion of the college or university expenditures as they should. The proportion may have been very inadequate at the beginning of the period. This evidently was true in some instances. Certainly the changed conception of the relationship of the library to the teaching work of the university has greatly increased the demands upon it for books, periodicals, and service.

An illustration may give some idea of the changes that have taken place in some libraries during this century. The librarians of two universities included in this study had been in their positions for twenty-five years. In one case the individual began his career as librarian in his present position at a salary of $400 a year. At that time the library staff consisted of himself and a student

FIG. 4. RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND LIBRARY SALARIES. (SEE TABLE F)

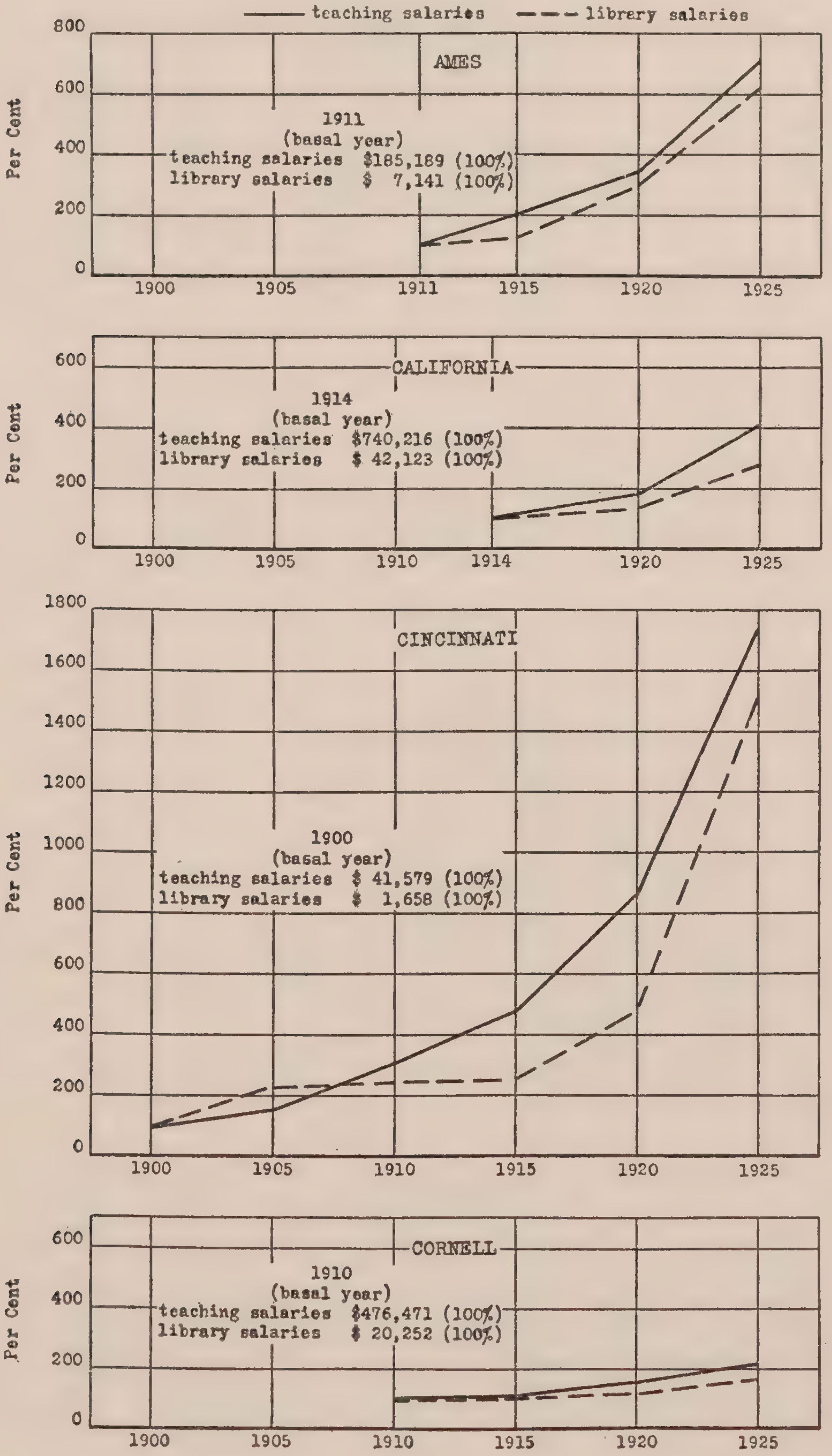


Fig. 4—*Continued.* Relation between the increase in total expenditures for teaching salaries and library salaries. (See Table F)

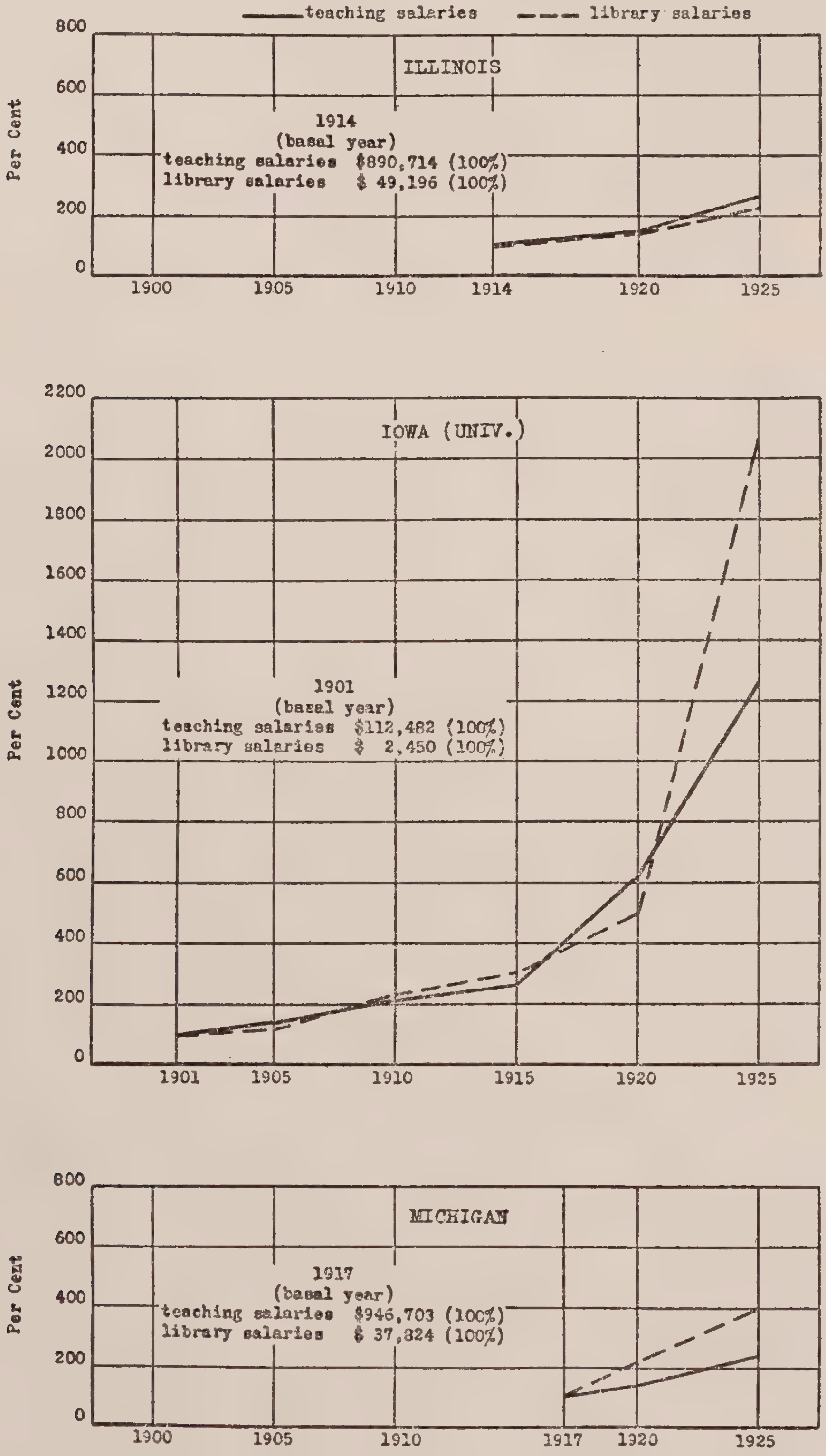


FIG. 4—*Continued.* RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND LIBRARY SALARIES. (SEE TABLE F)

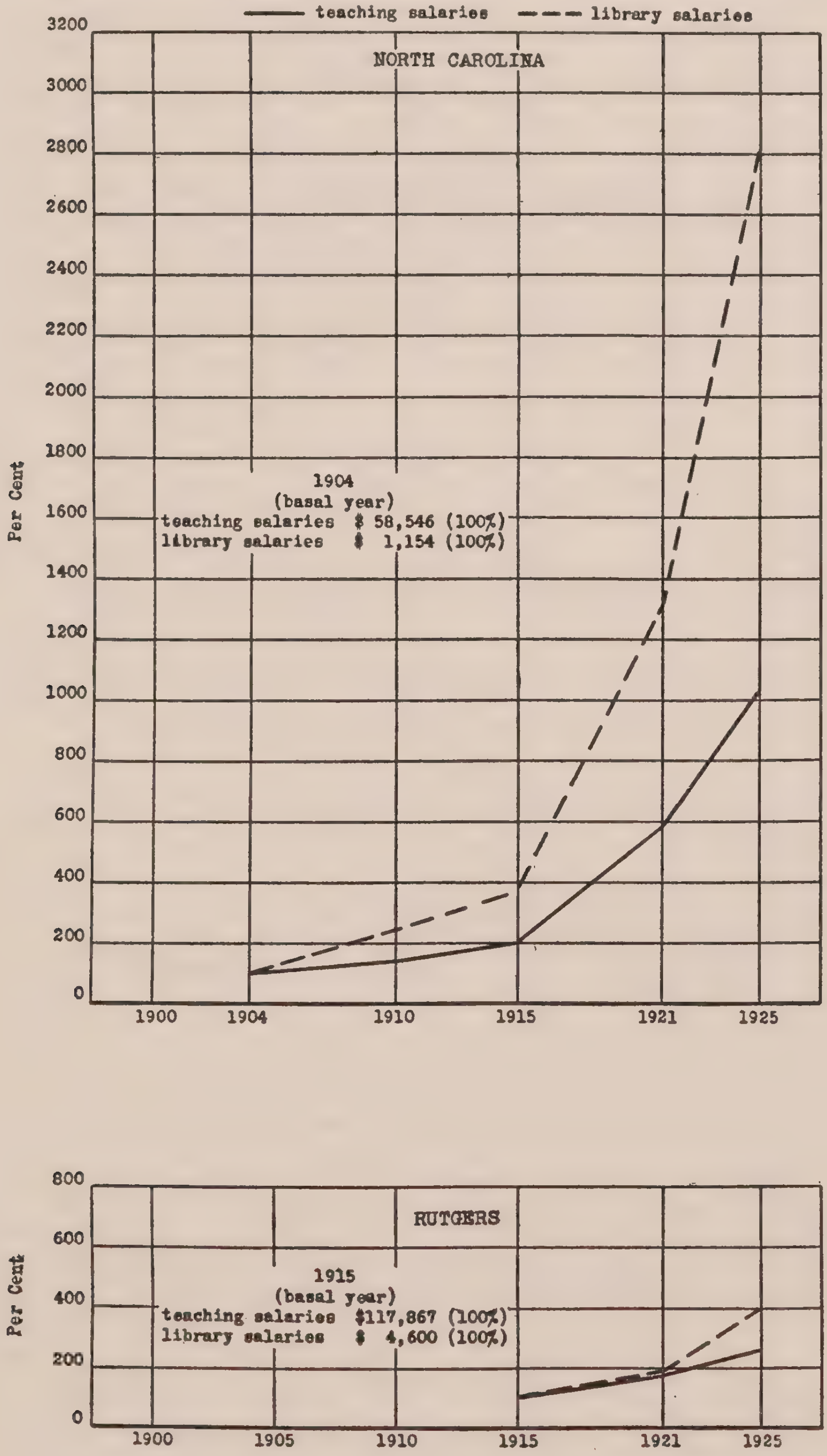
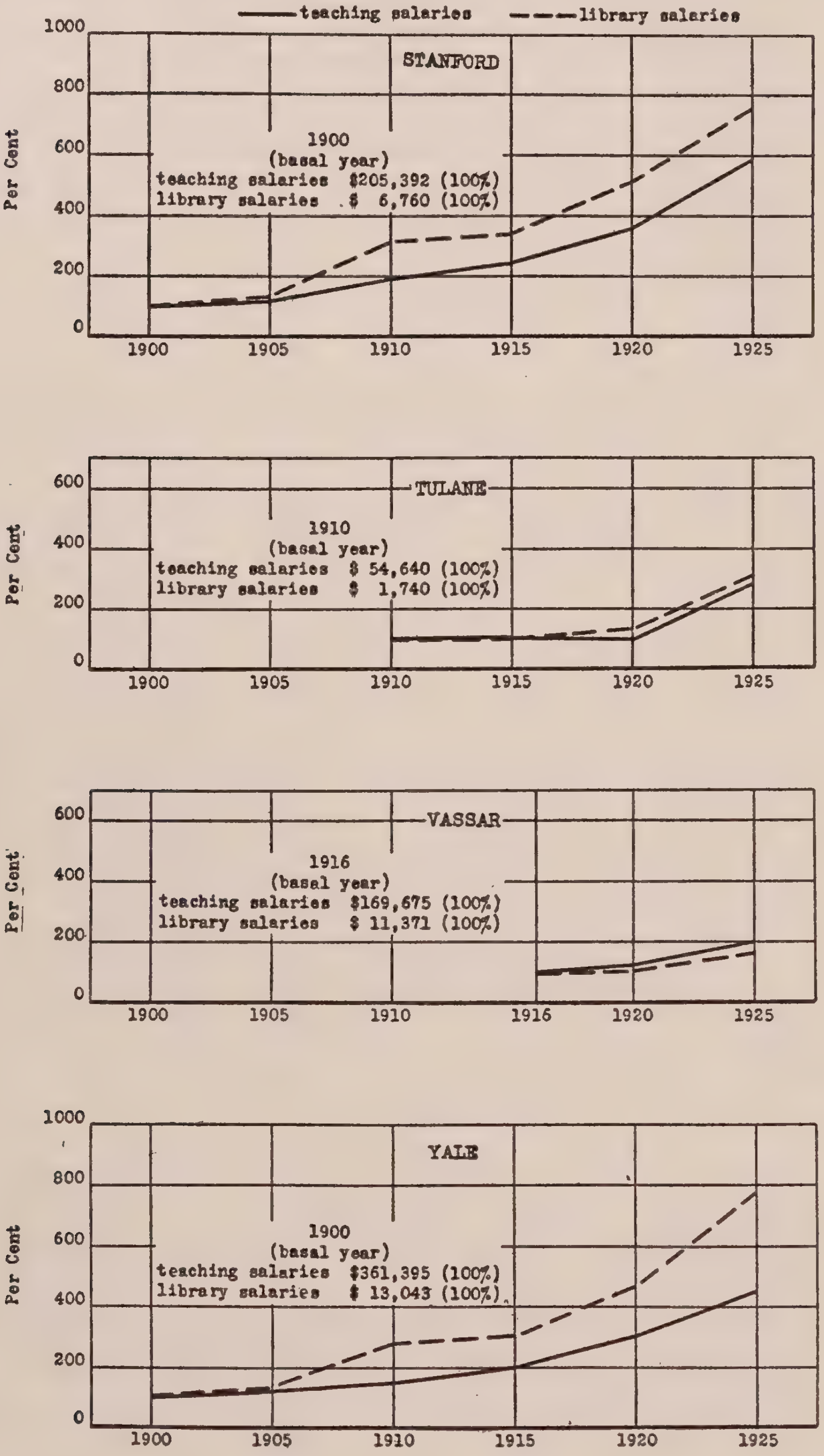


FIG. 4—*Continued.* RELATION BETWEEN THE INCREASE IN TOTAL EXPENDITURES FOR TEACHING SALARIES AND LIBRARY SALARIES. (SEE TABLE F)



assistant. The conditions in the other institution were practically identical with the first except that the librarian's salary was $500. In 1900 these institutions had 497 and 184 students, respectively. The corresponding figures twenty-five years later were 2434 and 788.

CHANGES IN METHODS OF INSTRUCTION

Disregarding the increase in size of the student body in the institutions referred to, the changes that have taken place in methods of instruction in the last twenty-five years would greatly augment the work of the library. The librarians would be unable to meet the demands of their clientele by the kind of service their libraries rendered twenty-five years ago. The present methods of instruction place relatively less dependence on the lecture and the textbook and much more on the library.

The following statement by Frederick C. Hicks is a clear presentation of this problem:

"The general tendency in all instruction today, including even that in preparatory and high schools is from what may be called the few-book method to the many-book method—a recognition of the power of the printed page for which librarians have always stood sponsor. The lecture, note-taking, textbook and quiz method of instruction is fast passing away in undergraduate as well as in graduate study. Textbooks are still in use in undergraduate and Master of Arts courses, but they have been relegated to a subordinate position. Emphasis is laid on work done and the assimilation of ideas gathered from many sources rather than upon memorizing the treatise of one author. Necessarily, references are chiefly to easily accessible works of secondary authority, and reading instead of research is the objective. The culmination of this method is found in study for the Doctorate in which research among documents of primary authority is carried on less closely under the daily direction of instructors, but with inherent need for consulting many books." [1]

RESERVED BOOKS

The problem of meeting the demands for reserved readings is a good illustration of the increased burden placed on the library by modern teaching methods. In the larger institutions this means the selection from the stacks each year of thousands of volumes and their segregation in a room or rooms where conditions are favorable for study. This calls not only for increased expenditures for service but it makes heavy inroads upon the book funds for the purchase of duplicates unless special provision is made for purchasing them by funds from other than the library's regular revenues.

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[1] Library Problems in American Universities, *Educational Review*, XLIX (1915), p. 326-27.

The libraries were unable to furnish the desired information on the growth in number of duplicates. Frederick C. Hicks furnished some data in an article several years ago on their growth in the library of Columbia University. He states:

"The total number of volumes needed for a course is larger now than formerly, both because of the increase in the number of separate books required, and because of the need of extra copies of many of these books. Duplication of books has become a normal method of supplying reading. This appears in the accession records of Columbia University Library, which show the addition of duplicates as follows:

1910-11	1911-12	1912-13	1913-14
115	190	1240	3523

It is a significant fact, also, that the college study, which is the undergraduate reading room of Columbia College, has over 1000 duplicates out of a total of about 6000 volumes." [1]

These data show that during the period they cover the increase was very rapid. Abundant evidence was found in the libraries connected with the larger institutions in this study that they had made large expenditures for duplicates to meet the needs of reserved readings.

METHODS OF OBTAINING FUNDS FOR DUPLICATE COPIES

Funds for furnishing duplicates are being secured in a variety of ways. In the University of California $5000 is set aside for the purchase of books for reserved readings. The following extract from the report of the library committee presents the essential features:

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[1] Ibid., p. 329.

"A limited sum, known as the Reserved Book Fund, is available for the purchase of duplicate copies of books, other than essential textbooks, which students are required to read. Requests for purchase from this fund should be sent to the Librarian. Since the sum available is limited, all such requests should bear indications of the instructors' preferences, in case the demand can be met only in part."[1]

In other institutions, notably Oregon and Stanford, departments desiring to have large numbers of books for reserved readings attach fees to the courses for this purpose. This is essentially the same practice that has been followed for many years in providing laboratory materials. In some institutions these fees are reported to the business office and are collected by it. They are then made available to the departments. In other cases the same end is realized by members of the instructional staffs suggesting to students in their classes that they make contributions to be used for adding to the reserved readings.

University authorities should not consider that they are adding to the permanent library resources when purchases are made for the ordinary duplicates for reserved reading of undergraduates. These materials should be regarded as being essentially the same as laboratory supplies. They are needed with the methods of instruction that prevail in most institutions. They are worn out or displaced by better books in a relatively short time. It seems wise, therefore, to pursue the same policy with reference to them that is followed with laboratory supplies. If the students are expected to pay for the laboratory materials, or partially pay for them, why not follow the same policy in the case of the duplicates for reserved readings?

Experience indicates that if such a procedure is used it is desirable to have some administrative regulation to safeguard the collection and expenditure of these funds. California at one time used the permissive fee system for supplying the reserves but has abandoned it. The fees in the aggregate became so large that it was deemed best to change to the system indicated above.

During the progress of this study instances were found in which the fees brought in more funds than departments could use on the reserved readings. They were using them for purposes clearly outside the original intention. In one case a member of a department stated that his department had interpreted it as legitimate to use them for "anything that would improve the instruction." The department went so far as to employ from these funds extra assistance to read papers and to conduct quiz sections.

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[1] Report of the Library Committee of the Academic Senate on the Finances of the Library for the Fiscal Year 1925-26.

In some institutions provision is made to safeguard the more fundamental needs of the library by placing a limit on the total number of copies of a book that may be bought from library funds where there are no special funds for purchasing duplicates. Usually the number allowed does not exceed two or three. In certain of the institutions if more copies are furnished they must come from departmental funds and not from the library. When this is the procedure followed, the books for reserved readings are sometimes purchased by the central library and cared for by it. In other instances the department purchases and places them in the library or elsewhere so that students may have access to them. On the whole it seems wiser to place the responsibility on the library. It is in a better position to check on the number of duplicates that are needed. It knows the number of copies that have been purchased by other departments as well as the use that is made of them by students. The case is not in this respect parallel to that of laboratory supplies. These are used under the immediate direction of the department of instruction. The use of reserved books was found usually to be under the supervision of the library even when purchased by departments. This would be true in all cases in the type of centralized library service that is suggested in the chapter on College, School and Departmental Libraries.

Considerable evidence of waste of funds was found in connection with the supplying of duplicates for reserved readings. This loss was due primarily to two causes: (1) the purchase of more copies than were needed; (2) the purchase of large numbers of various books for reserved readings by one instructor and the failure of a new instructor to use those previously selected. Librarians were inclined to add a third factor. This was the frequent changes in reserves made by instructors due to new books' coming on the market. It is doubtful if all of this should be regarded as waste. Certainly this would not be true of all changes. If reserved readings are to be used as a means of instruction the student is entitled to the best that is available. This is not to deny that changes are made when the differences between the new and the old books are not sufficient to justify them.

NUMBER OF DUPLICATE COPIES

Inquiry was made at each institution with reference to the number of duplicates provided for reserved readings. The differences among the libraries were large. The range was from one copy for five students to one for fifteen. The most common reply was one copy for ten students. It is doubtful if this question has received the consideration it should have. Little evidence was found of the type of study reported by Frederick C. Hicks, now law librarian in Columbia University. A statement from his discussion follows:

"What relation does the number of copies of a given reserve book bear to its use? To put the question concretely, how many copies of a book are required to supply a class of 200 students, all of whom must read thirty pages of the book within two weeks? The librarian must decide this question in advance in order that enough books may be on hand. He cannot rest his decision wholly on the recommendation of the instructor chiefly interested because requests for the same book often come from several sources. The duty of administering the reserve collections with economy and efficiency must be accepted by the library. In order to find a basis for judgment the present writer in 1910 attempted a study of the use of reserve books in the Columbia College study. For periods ranging from four to twenty-eight days records were kept of the use of books most in demand in literature, history, philosophy and economics. For each book the following facts were recorded: (1) number of copies, (2) number of students in the class, (3) total number of times all copies of a book were used, (4) average use per day, (5) average use of one copy per day. Recognizing that it would be impossible to deduce definite conclusions from the figures, since they do not include other elements such as (a) the number of pages of required reading in each book, (b) the length of time in which it must be done, (c) the character of the subject matter, and (d) whether there were alternative readings, the following generalizations were made: In English and American literature where ordinarily the reading is not difficult, a class of 175 to 200 students can be served with five copies of a book. In history and economics the same number of copies will serve a class of not more than 65 students when an assignment of 50 to 75 pages is to be read in ten days. In philosophy three copies of a book are usually sufficient since the demand is steady rather than spasmodic.

"The above conclusions were drawn on the assumption that professors would announce assigned reading a considerable time before it must be completed and that excuses from students that 'they could not get the books' would not be accepted. They relate only to one undergraduate reading room and must not be taken as generalizations which would hold in other colleges or under other conditions. They merely represent the results of one attempt to solve a technical problem involved in the administration of the reserve system."[1]

NEED FOR STUDIES OF SERVICE

In this connection it may be pertinent to mention that there appear to be large opportunities for libraries to make more complete studies of their service than were found. Comparatively little evidence was secured indicating that librarians were endeavoring to get at data that would make it possible for them to give answers involving a small element of opinion. When this view was advanced the usual response from the library staff was either "lack of funds" or "not enough time." Undoubtedly there is much to justify these replies. Administrative officers frequently fail to realize the need of the library for funds for such purposes. However, there is a probability that a third factor influences the situation. Some of the librarians have not had the training that would fit them to collect objective evidence and use it as the basis of solving their problems. This phase of the library situation may well receive attention in institutions such as California, Chicago, Columbia, and Michigan, in which training for librarianship has recently been launched. These schools should mark a new era in the type of training that will be given for the more responsible positions in college and university libraries.

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[1] Library Problems in American Universities, *Educational Review,* XLIX (1915), p. 331-32.

CIRCULATION

Several institutions were able to furnish data on annual circulation. On the basis of these figures computations have been made showing the rate of increase in all the institutions in which figures were available. The results are shown in Table G, Appendix. Comparisons between the institutions cannot be made to advantage due to the differences in methods of handling circulation. In some instances students have direct access to reserved books and no records are kept of their use by students. The number of books on shelves that students have direct access to is much greater in some libraries than in others. In a given institution the practice with reference to the accessibility of books to students is likely to have changed within a period of ten or fifteen years. For these reasons the data on circulation cannot be considered of great significance. As a whole they show a consistent and marked growth and may fairly be regarded as an index of increase in one form of library service.

CHARACTER OF SERVICE RENDERED

The character of the service given by departments of the library having direct contact with persons using the library is very important. Statements made by members of the faculty and of the student body show that there is considerable objection to the type of service sometimes given by the library; especially is this true in the case of the circulation department. The following statements are illustrations of what those served sometimes say:

"There is altogether too much student help. The librarian likes to have the power that comes from making a large number of appointments."

"There is too much cheap help in the library."

"Some of the attendants at the loan desk discourage students by their attitude toward them."

One who goes about from library to library cannot help but be impressed by the marked differences in attitude taken by attendants toward students. In the majority of the libraries included in this study the attitude of the attendants was that of help cheerfully given. In others there was too much evidence of service grudgingly rendered. Persons desiring service were apparently regarded as annoyances. These conditions are not to be laid entirely to the presence of student help in the library. The complaints made against student help were, for the most part, of a very different character. They were charged with making special concessions to their close friends, and with incompetency rather than reluctance in helping the readers.

Evidence was found indicating that needy students were employed in some libraries in order to help them through the institution. To help worthy students is certainly very desirable. It does seem, however, to raise a fair question as to the extent to which the library should be expected to contribute to this end when it is at the expense of quality and economy of service on the part of the library.

Closely related to this problem is the placing in library positions of persons who have grown old in the service of the university. Some evidence was found indicating that persons who have rendered the institution loyal service are transferred to positions in the library regardless of their ability to do the work. Where persons have served the institution for many years, and there is no provision for retirement allowances, to care for them, if they are needy, is only humane. The library may offer some opportunity for them to render a service, but frequently it is not the type of service the librarian would obtain if he were entirely free to do as he deemed best. When persons are placed in such positions their compensation should not be considered a charge against the library, i.e., their salaries should not be considered a part of the library budget when the budget is under consideration by presidents and boards of trustees.

PROPORTIONS OF EXPENDITURES DEVOTED TO BOOKS AND TO SERVICE

Data were collected on the relative proportions of funds expended for books and periodicals as contrasted with service. As in many other cases the point of interest is the trend for each institution rather than any conclusions that might be drawn as a result of comparing institutions. Libraries with a large proportion of gifts would naturally have a relatively large expenditure for handling the books as contrasted with the expenditures for books alone. In some institutions departmental and college library service charges are on the budget of the central library and in other institutions they are on the budgets of departments of instruction. In the institutions in which care of books is assumed by departments of instruction there are some cases in which the purchases are made from the funds of the central library and in others they are paid for by the departments. These and other reasons vitiate the conclusions that might be drawn from comparisons. The proportions spent for books and periodicals as contrasted with service by five-year periods and for the entire period are shown in Table H, Appendix. It will be noted that the ratios are fairly constant. A few institutions have declined somewhat and others have increased. This is in interesting contrast with the views expressed by some faculty members to the effect that there was a pronounced tendency to increase the proportion of the funds devoted to service.

Extent to Which Libraries Are Able to Meet Demands

The extent to which they are able to meet the requests made of them for service should have more consideration than is given it in many libraries. The heads of the circulation departments were asked if they had any statistics on the extent to which they were able to meet the needs of prospective readers. No recorded data were found at the time of the visits to the institutions. One of the librarians became interested and had records kept at the loan desk from three to five o'clock for several afternoons. During the time of the investigation 742 slips were presented at the loan desk. Of the calls 523 were supplied. This left 219 requests for books unmet. The librarian then proceeded to make an analysis of the reasons for the inability of the loan department to meet the prospective borrowers' needs. The analysis resulted in the following information:

Books charged to other readers	164
Books at bindery	10
Books not located due either to loss or failure to file slips for books just drawn	36
Readers referred to catalog on account of wrong number	9

The librarian makes the following comment on the results of the findings:

"The number of books charged out to other readers is entirely too large. Ordinarily it would seem to call for a greater duplication of books. An analysis, however, of these calls shows that the cause is ordinarily (a) a faculty member's referring a large group of students to two or three books which he should have asked the library to place on reserve, or (b) the reference of a large class to a topic on which the material is limited. These calls for books charged out to other readers almost invariably represent class assignments. It is believed that the only solution is either for the faculty to be more careful in regard to notifying the library to place books on reserve or else a wider range in the assignment of topics for study. A further study has shown that the calls for books charged out from month to month do not represent the same books but a continually changing list. If books were duplicated one month it does not follow that these books would be needed in following months."

It is believed that this study and analysis is illustrative of the kind of thing that might well be done occasionally in libraries. These studies need not be limited to the circulation departments but might well be extended to include most types of library service. The results would furnish a very much more adequate basis either for a continuance of existing practices, or for their modification, than those general impressions that at present are frequently potent factors in determining policies.

PERIODICAL LITERATURE

In the interpretation of the data for the support of libraries as contrasted with the total expenditures for the institutions or the expenditure for teaching salaries, it should be borne in mind that there have been certain growths in demands on the libraries that are not covered by increase in volumes, growth in student body, and circulation figures. Some of these should at least be mentioned.

Figure 5 and Table I, Appendix, show the remarkable growth that has taken place in periodical literature in recent years. The result has been a very greatly increased demand on the library

FIG. 5. INCREASE IN THE NUMBER OF PERIODICALS IN THE LIBRARY. (SEE TABLE I)

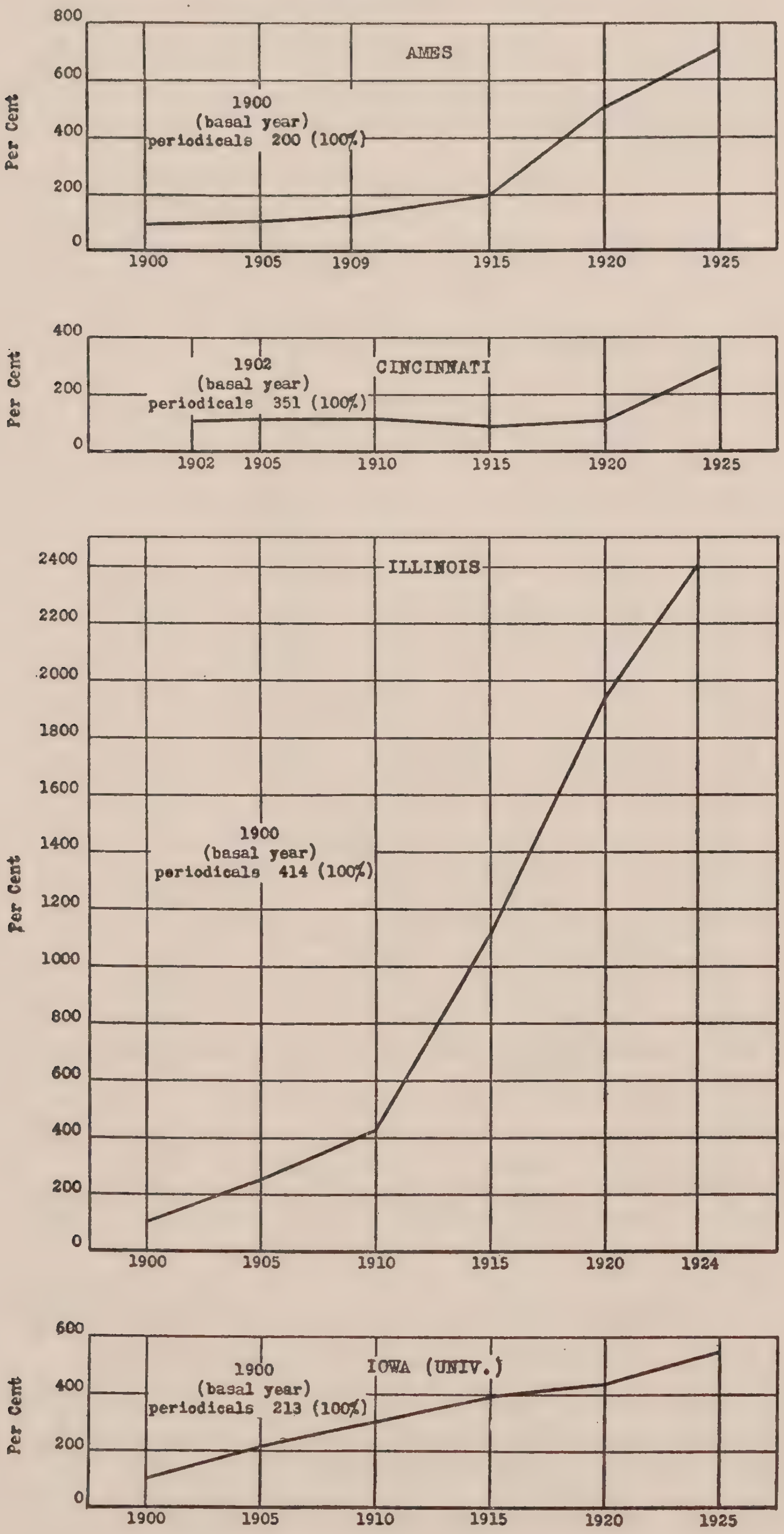
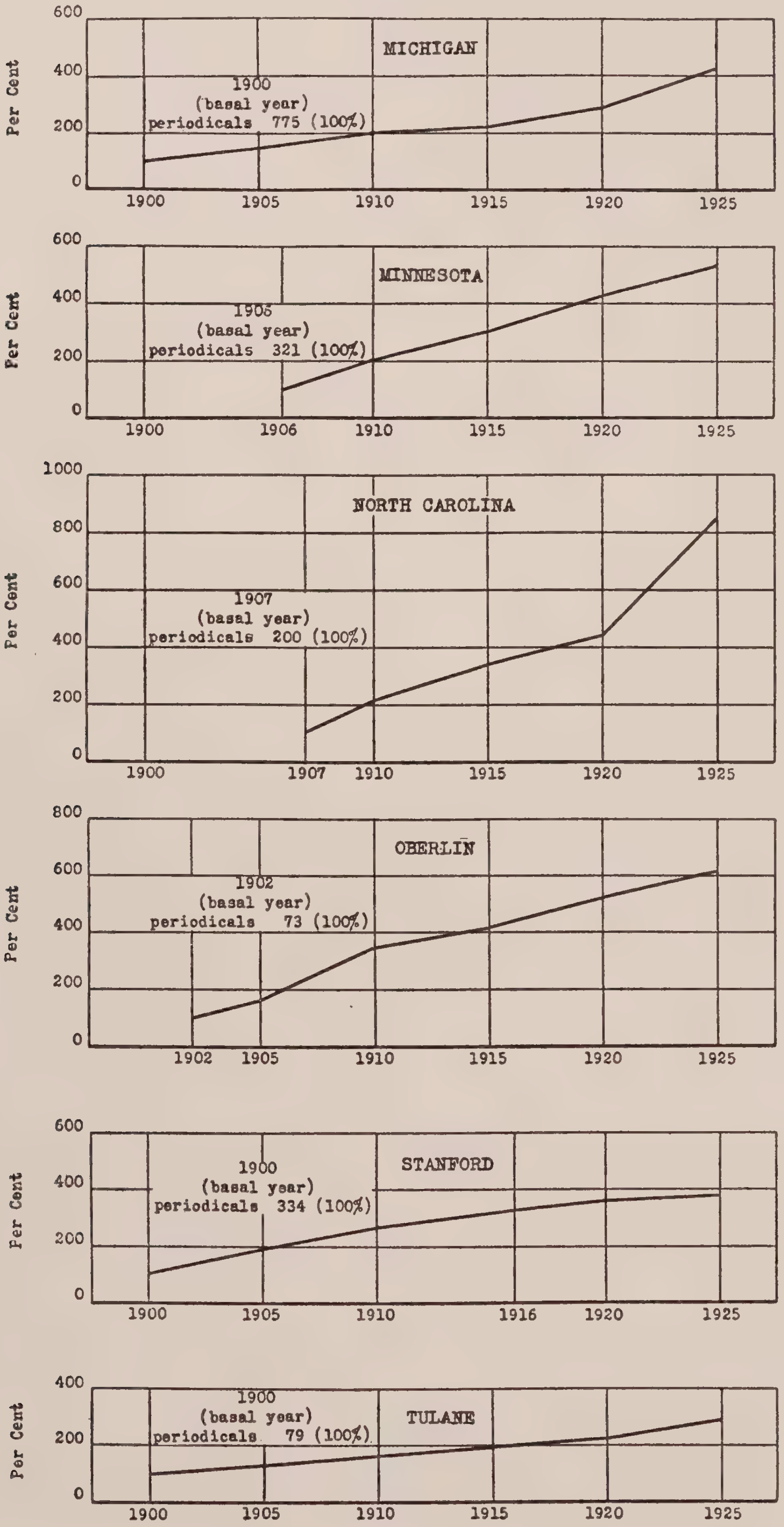


FIG. 5—*Continued.* INCREASE IN THE NUMBER OF PERIODICALS IN THE LIBRARY. (SEE TABLE I)



funds. This demand has manifested itself in several ways. Some of the most pronounced are:

1. The much larger number of periodicals that are available and that members of the faculty consider essential to successful conduct of their work. Many instances were found in which science departments were obliged to use all of their allotment for library purposes to purchase the periodical literature that was regarded as necessary for the work of the department.

2. A pronounced increase in the subscription price of practically all periodicals since the war.

3. The increase in the number of periodicals has resulted in increased cost of making them available to students and faculty. The cost of preparing them for binding has also grown.

For the purpose of getting some definite information on the increase in the cost of periodical literature, a comparison was made of the cost of 633 periodicals that were purchased by the Cornell University Library in 1910 and also in 1925. These were all the periodicals purchased by this library from the "periodical fund" in 1910 and also in 1925, except the Belgian, French, and Italian ones. These were omitted from the comparison because the rates of exchange were not well enough stabilized so that comparisons could be made with any considerable degree of accuracy. In Table J, Appendix, are displayed the results when these periodicals are distributed in three groups on the basis of their origin and in four classes in each group as determined by their 1910 costs. The percentage that the 1925 cost is of the 1910 cost was determined. These percentages were then distributed and the median percentages of increase computed by classes. In this computation the two most expensive classes in each group were put together. This was done because of the small number of cases in the most expensive classes in the groups of "domestic" and English periodicals.

It will be noted that the increase as shown by the medians is higher for each class of English periodicals than it is for the corresponding class of "domestic" periodicals. In turn each class of "Continental" periodicals except one shows a greater increase than the corresponding class of English periodicals. In the case of the exception the increase is practically the same. It will be noted

TABLE 1

INCREASE IN COST OF PERIODICALS. TOTAL SUBSCRIPTION COSTS OF 633 PERIODICALS IN 1910 AND IN 1925. PERCENTAGES THAT COSTS IN 1925 ARE OF COSTS IN 1910.*

COST IN 1910	Number	Cost in 1910	Cost in 1925	Per Cent Cost in 1925 is of Cost in 1910
DOMESTIC PERIODICALS				
Less than $3.00	109	$186.96	$ 322.37	172.4
$3.00 to $5.99	93	372.45	550.93	147.9
$6.00 to $10.99	18	134.45	258.60	192.3
$11.00 and more	2	24.00	34.25	142.7
All	222	717.86	1166.15	162.4
ENGLISH PERIODICALS				
Less than $3.00	40	77.05	141.56	183.7
$3.00 to $5.99	76	351.37	519.69	147.9
$6.00 to $10.99	34	267.20	429.06	160.6
$11.00 and more	6	91.40	124.35	136.1
All	156	787.02	1214.66	154.3
CONTINENTAL PERIODICALS, except Belgian, French, and Italian				
Less than $3.00	76	135.94	343.78	252.9
$3.00 to $5.99	104	457.42	806.36	176.3
$6.00 to $10.99	40	326.06	557.11	170.9
$11.00 and more	35	593.04	1400.63	236.2
All	255	1512.46	3107.88	205.5
Total	633	3017.34	5488.69	181.9

*These data are based on all serials purchased at Cornell in 1910 and in 1925 from the "periodical fund."

that in each group the least expensive periodicals have increased most.

Another way of comparing the increase in cost is to take the total subscription cost in 1910 and compare with it the total subscription cost in 1925. This has been done in Table 1. This comparison is the more significant one from the point of view of the budget of any given library. It shows that for the 633 periodicals the 1925 cost was 181.9 per cent of the 1910 cost. It also shows that those periodicals designated as "Continental" had increased most, the domestic second, and the English least. The apparent discrepancy on this point between Table J (Appendix) and Table 1 is due to the difference in proportion of periodicals with low subscription costs in the two groups. It will be noted that a considerably larger proportion of the domestic periodicals is in the class with the smallest subscription prices. As was indicated above, the subscription prices in this class have increased the most.

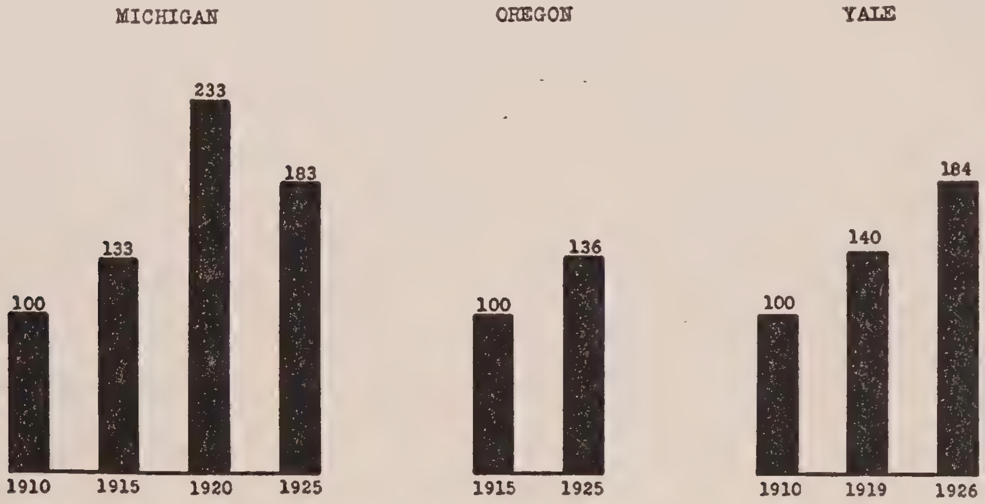
BINDING

4. There has been a marked increase in the cost of binding. This, combined with the increase in the number of periodicals, has resulted in a very rapid rise in expenditures for binding. As a result some of the libraries included in this study have not been able to keep their bindings up to date and at the same time meet the other demands made upon them.

An attempt was made to collect data from each of the libraries on the increase since 1910 in costs of binding. Most of the libraries were not able to furnish the desired information. However, data were secured from three different sources on the cost of binding certain magazines over a period of years. These data show not only a marked increase in costs but a surprisingly close correspondence. Comparisons are in all cases based on the cost of binding periodicals of the same size. Figure 6 shows the increase in the cost of binding. The 1925 cost of binding at Michigan was 183 per cent of the figure for 1910. At Yale, the 1926 figure was 184 per cent of the 1910. The data from Oregon did not go back of 1915. The information from Michigan showed for 1915 an increase of 33 per cent over the 1910 cost. When allowance was made for the same rate of increase for Oregon for the period from

1910 to 1915, the 1925 cost was 182 per cent of the interpolated 1910 figure. These increases are all based on cloth bindings. The use of leather binding for periodicals has practically disappeared. It is too expensive and the leather obtainable is not durable.

FIG. 6. INCREASE IN THE COST OF BINDING PERIODICAL LITERATURE.



Several of the libraries were unable to keep their binding of periodicals up to date. As a result the difficulties of handling this material, and of keeping it reasonably accessible, were greatly increased. In most instances the lag in binding began during or immediately following the war. The rapid rise in cost of bindings and in service that came at that time made it impossible for libraries to meet all of the demands made on them without greater expansions of their budgets than were forthcoming. The librarians chose to neglect the binding of periodicals rather than fail to meet some of the other urgent demands.

The shortage of funds has also resulted in failure in some instances to rebind books when it should have been done. As a result, in some of the libraries many hundreds of volumes have been used long past the time when they should have gone to the bindery. Naturally these volumes have been so nearly used up that the cost of putting them in condition has been greatly increased.

The data submitted on growth in periodical literature and the increase in cost of periodicals and of bindings make it clear that the pressure on library funds to take care of periodical literature has been heavy.

FIG. 7. INCREASE IN INTER-LIBRARY LOANS. (SEE TABLE K)

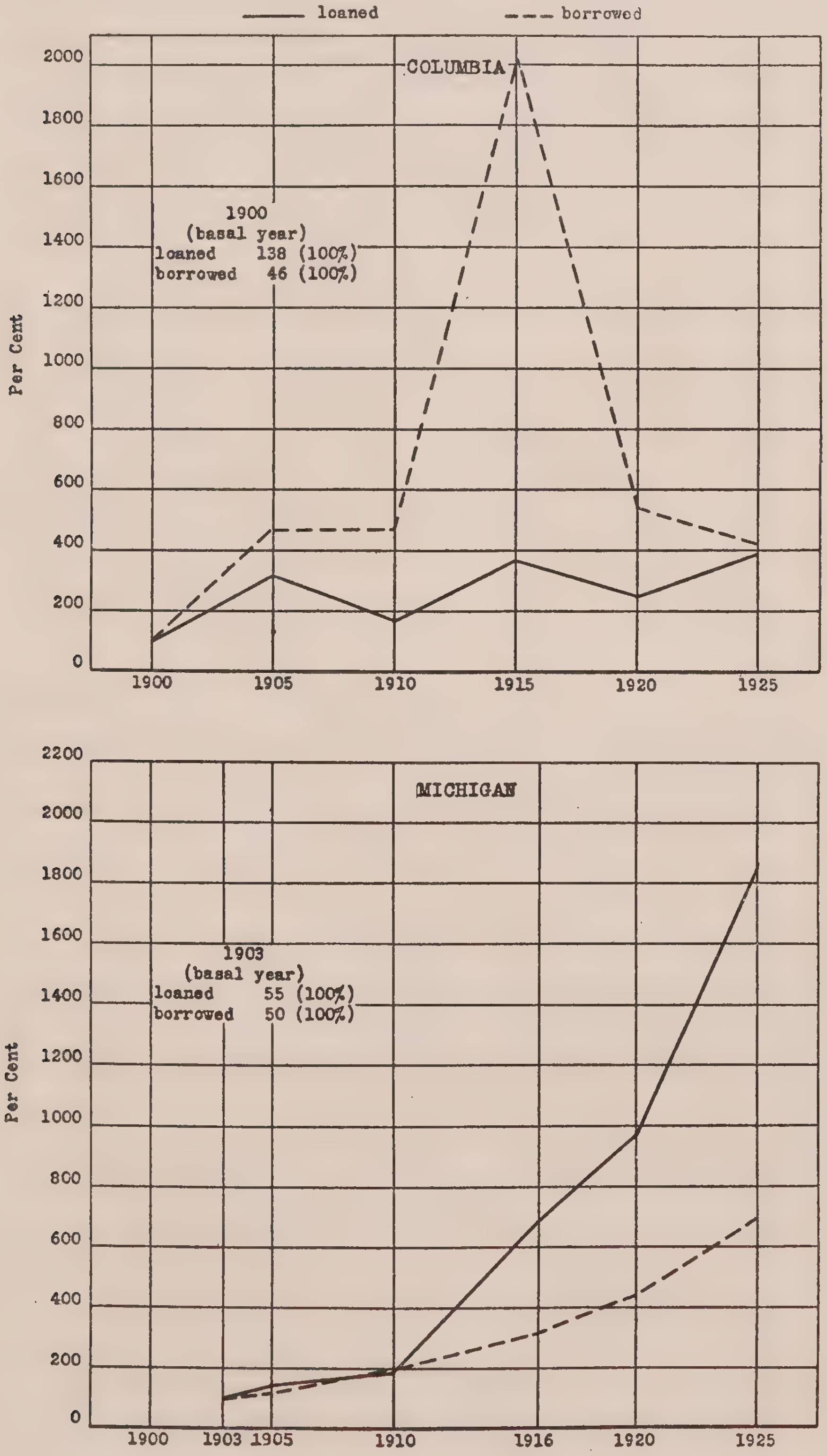
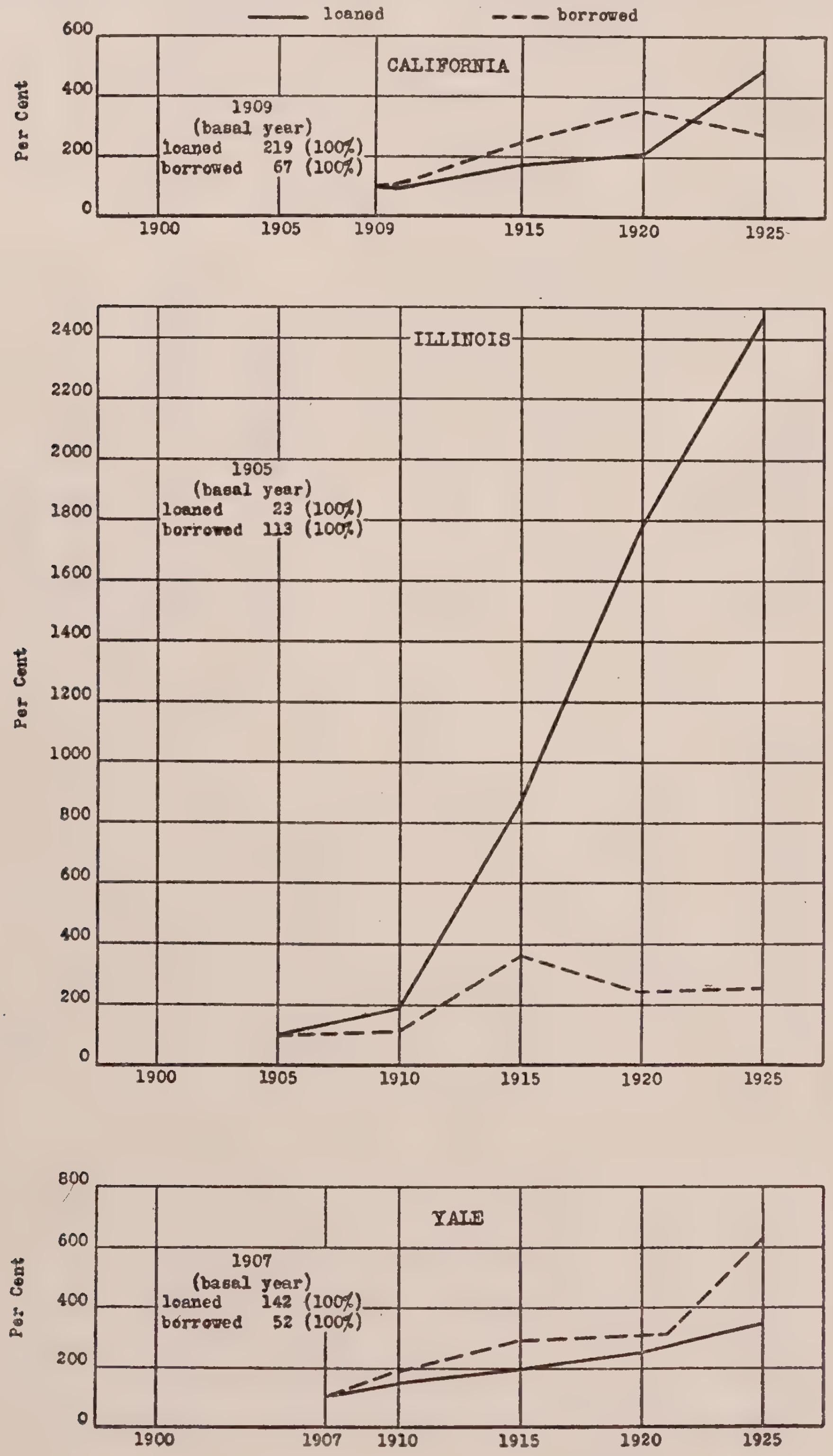


FIG. 7—*Continued.* INCREASE IN INTER-LIBRARY LOANS. (SEE TABLE K)



INTER-LIBRARY LOANS

With the development of research there has been an increased demand on the part of faculty members and advanced students for the use of printed resources not available in the libraries of their institutions. The inter-library loan service has been the outgrowth of this demand. Figure 7 and Table K, Appendix, show, for the institutions from which the data were available, that there has been a steady increase in this phase of library service. While the number of cases of borrowing and of making loans for most libraries is not large, it must be borne in mind that in many instances the work done in locating the material is very great.

The inter-library loan service is apparently very much appreciated by a fair proportion of the faculty. The faculty members interviewed, who had used it, almost without exception held this service in high regard. With the expansion of the air-mail service and reduction in transportation charges there will undoubtedly be a considerable expansion in the demands for loans made upon the larger libraries.

In some institutions the transportation costs both ways are borne by the library for both faculty and students. In others it is charged to the student one way. This service means additional demands on the financial resources of the library.

UNION LIST OF SERIALS

The cooperative effort by which about forty of the large libraries are developing a union list of serials is another illustration of an expansion of service on the part of the modern university library. This list when complete will show the exact volumes of each serial in the libraries of the cooperating institutions. A service of this kind by which the professor or graduate student can locate serials needed in research will be very helpful.

EXTENSION SERVICE

Besides the service rendered to persons living in the university community some libraries have a type of extension service. This consists largely in the sending out of collections of pamphlets and clippings. They may be designed primarily to meet the needs of clubs, debating leagues, etc., but the privilege of borrowing them is open to any person. No doubt valuable service is being rendered adults who have intellectual interests and also to high school students who find their local libraries inadequate when they make preparation for oratorical and debating contests.

Not all libraries in this study have developed this service. Michigan, North Carolina, and Oregon furnished the most complete data. Table L, Appendix, shows something of the growth of this phase of library service for those institutions.

CAPITAL OUTLAYS

The study as originally planned made provision for securing data on the capital outlays for laboratory sciences as contrasted with capital outlays for the library. The purpose was to discover the relationship between the expansions that have been made for laboratory subjects as contrasted with the humanities. It was soon found that it was impossible to obtain the desired data in many institutions, and in those in which they were available so many extraneous elements were involved that the data would have had practically no value.

No new data are needed to convince one that the growth in the importance of the sciences in instruction and research is an outstanding feature of college and university education. Large sums have been spent in the erection of laboratories and shops and in their equipment. There has not been a comparable expansion in providing for the humanities. If there has been it would show itself more especially in the library facilities and the book resources.

PROVISIONS FOR GRADUATE STUDENTS

It is true that volumes have increased in number and study provisions have been made more ample. In relatively few of the institutions visited, however, were the latter found to be adequate. The inadequacy was especially pronounced in the case of students who were doing graduate work. For the work of these students, aside from the printed materials, two needs are evident: (1) study rooms in charge of competent staffs; (2) provisions for study where materials may be kept for considerable periods of time when the students are engaged in their researches. This need is usually met by carrels or by the individual desks arranged in the stacks or adjacent to them so that students may have ready access to the materials related to their fields of study. The rapid growth in numbers of graduate students in several of the institutions included in this study during recent years has made this imperative (Fig. 2, p. 14, and Table C, Appendix). Not more than two or three of the libraries included in this study could be characterized as having adequate provisions for the research work of their graduate students and faculty members. These were in institutions in which either buildings had been erected relatively recently or additions made to old buildings.

HONOR COURSES

The introduction of honor courses has increased the work of the library staff. The successful use of these courses is in a measure contingent upon the students who are working for honors having ready access to greater numbers of books than are provided for most students. They need access to a wider range of materials than is provided under the system of reserved books, or than is usually available in reading room collections. In most libraries this has been met by giving students studying for honors the privileges of the stacks. In the majority of institutions included in this study, previous to the introduction of the plan of study for honors, this privilege had been limited to graduate students. The extension of this opportunity to a considerable body of undergraduates results in increased demands in caring for the stacks. Some of the difficulties that grow out of ready access to stacks and other collections of books are summarized in the following quotation:

"The most serious administrative problem of a university library is to keep the interval between the book and the reader to the very minimum. There is a conflict of interests involved and a compromise has to be worked out. Access to the library collections must be made, and kept, open to those entitled to the freedom of the stacks. The use of the stacks means risk of misplaced volumes, and of a discrepancy between shelf and record. A book in its place is a book that will be found promptly, and a book out of its place is a book lost, unless the record is there to give the explanation. Some compromise between the interests of those who use the stacks and of those who hand their requests over the loan desk is necessary, and it is a problem that presents particular difficulty in our library building.

"The right solution is not yet worked out, but experiments are always in process. It is a question of infinite detail, and the one guiding principle is economy of time. There is no short cut to it in the book-record, and one cannot help the usefulness of the card catalog by extracting a handful of cards here and there. The books must be fully and accurately recorded, and the responsibility of the library for the record is direct and definite."[1]

HOURS OF SERVICE

The original plans of this study called for the collection of data on hours of library service from 1875 to 1925. Some of the institutions were not established as early as that and in others the desired information could not be furnished. The data that were obtained are displayed in Table 2. Examination of this table reveals that Ames, California, Michigan, Oberlin, Rutgers, Vassar, and Yale were able to show the changes in hours of library service for the period from 1875 to 1925. There were in 1875 considerable differences in the number of hours of service per week. Oberlin and Rutgers had the minimum, twenty-four hours, and Michigan the maximum, seventy-five hours. All of the institutions in this group show an increase over the fifty-year period. The present hours of service, when expressed in percentage of the number of hours the libraries were open in 1875, are marked. The largest percentage, 362.5, is found in Oberlin and the smallest, 114.0, in Michigan. It should be borne in mind, however, that in the latter institution the number of hours of service per week was large in 1875; consequently there was not the opportunity for increase that there was at Oberlin.

The libraries reporting for less than the fifty-year period show increases in all instances with the exception of Columbia. There has been in that library a slight decrease since 1885. The increases are especially marked at North Carolina and Oregon. This is additional evidence of the delayed library development that characterized these institutions.

The data of this table also show less variation in hours of service per week in 1925 than obtained in the earlier years. The highest is California with the library open ninety-two hours per week

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[1] Roger Howson. The Columbia Library System as a Research Laboratory, *Columbia Alumni News,* XVII, No. 6 (1925).

TABLE 2

HOURS OF SERVICE PER WEEK FOR CENTRAL LIBRARY

Institutions	Academic Year Ending in											Per Cent 1925 is of First Year for Which There Is Data
	1875	1880	1885	1890	1895	1900	1905	1910	1915	1920	1925	
Ames	48	31½	..	68⅔	..	59	65	72	75	82	75½	157.3
California	40	..	48	..	48	84	..	..	92	..	92	230.0
Cincinnati	..	..	..	..	..	..	54	54	76½	76½	76½	141.7
Columbia	..	..	84	81	..	87	87	..	81	81	81	96.4
Cornell	..	..	..	..	..	..	81½	81½	87	87	87	106.7
Illinois						No data						
Iowa (Univ.)	..	..	48	48	..	..	84	85	85	85	85	177.1
Michigan	75	75	75	75	84	85½	85½	85½	85½	85½	85½	114.0
Minnesota	..	..	48	48	48	48	48	84	84	84	84	175.0
North Carolina	..	..	20	30	45	42	56	63½	63½	66½	87	435.0
Oberlin	24	24	24	51	87	87	87	87	87	87	87	362.5
Oregon	..	..	..	..	30	46	46	60½	81½	89½	89½	298.3
Rutgers	24	24	24	..	..	54	80	80	80	80	80	333.3
Stanford	..	..	..	..	..	77½	77½	77½	79	83	83	107.1
Tulane	..	51	51	51	51	51	51	51	51	60	69	135.3
Vassar	54	54	54	60	66	66	66	68½	73½	73¾	73¾	136.6
Yale Reference	30	36	36	45	48	72	72	81	81	89	89	296.7
Yale Lending						48	48	51	51	51	51	170.0

as compared with Tulane with sixty-nine hours. These differences are partially due to the fact that some of the libraries are open on Sundays.

In this phase of their activities libraries are not likely to make marked increases. These data relate primarily to the central library. There may, however, be increases in the number of hours college or departmental libraries are kept open. But most of the libraries included in this study have now reached a point in which there can be but little increase in the number of hours per week that the central library is kept open. The marked increase shown by most of these institutions in number of hours of library service rendered is one of the important reasons for increased financial demands.

GIFTS AND PURCHASES

The extent to which libraries are securing their additions through gifts or donations as contrasted with purchases has a significant bearing on the support of the library. Data were collected on this question and computations have been made that show the percentage of books obtained by each method for those libraries that were able to supply the data for fifteen or more years. They are exhibited in Table M, Appendix.

It will be noted that a majority of the institutions are getting a decreasing proportion of their additions by gifts. The exceptions to this decline are: Illinois, in which the proportions have been fairly constant for the last twenty years at least; Oberlin, which has been fairly constant over the last twenty-five years; Stanford, which shows a decline for some time but during the last five years has gone back to its early proportions; and Yale, which shows a fairly constant relation throughout the entire period. Illinois, Oberlin, Oregon, Stanford, and Yale were the only institutions in which the proportion of gifts for the period from 1921-1925 was as great as the proportion for the entire period. In interpreting these statements it should be borne in mind that books purchased include those bought from trust funds as well as from library appropriations. This decline in gifts is relative rather than absolute as all of the libraries are now making much larger purchases than formerly. These data show relatively an increased drain on the library resources in supplying the printed materials.

CHAPTER 3

Cooperation in the Development of Library Resources for Research

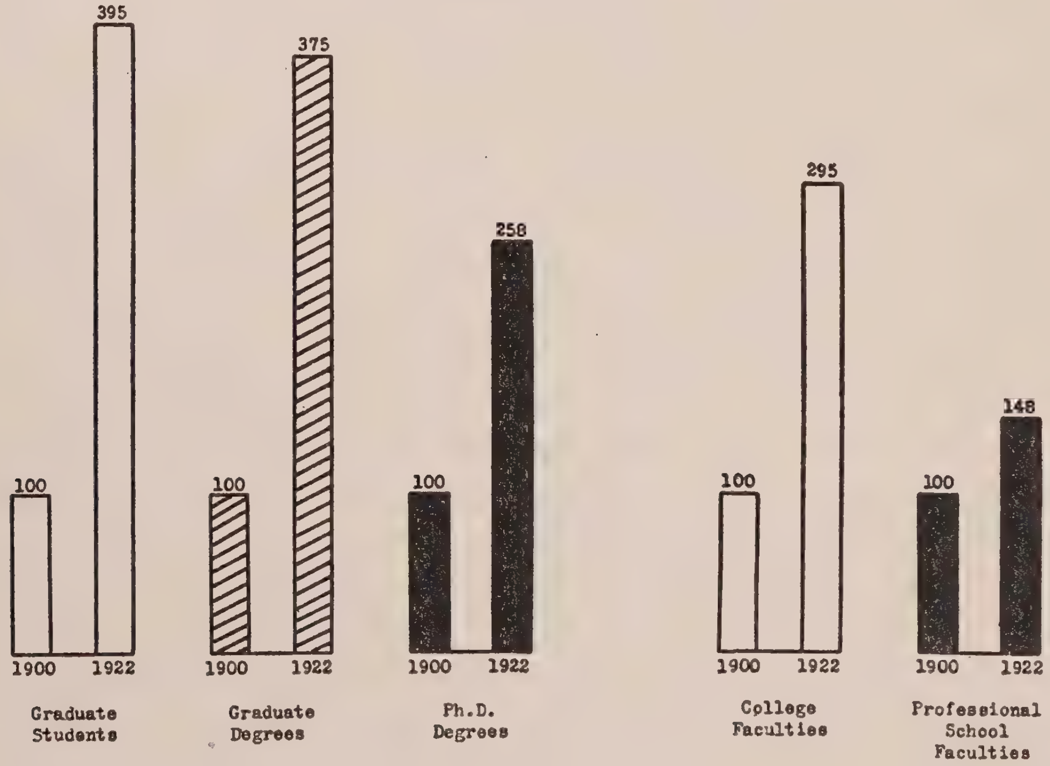
IN this study no special objective measures were devised for determining the adequacy of the printed resources of the library for purposes of research. On the part of the faculty members, the statement was very frequently made that these resources were inadequate, both for their own needs and for those of their graduate students. In a few institutions the faculty members were inclined to place the responsibility for this situation on the librarian. It was stated: "He has no adequate conception of the place of scholarship"; "It takes vision and scholarship to be a librarian. His purchases in biology were rubbish." He was also sometimes accused of spending too large a proportion of the library funds on duplicates or of frittering them away on books that had little or no value in the college or university library.

There can be little doubt but that a keen appreciation of the needs of research is an indispensable characteristic of the person who attempts to serve successfully as librarian in a modern university. That this quality is lacking in some instances cannot be gainsaid. However, as a result of the work on this study, it is the opinion of the writer that to apply the above-mentioned criticisms to all librarians would, in the great majority of cases, be unfair—at least it would be unfair in the group of institutions included in this study. A considerable proportion of the criticism is due to conditions that are beyond the control of librarians.

The data presented on page 14 show that for the group of institutions studied the increase in number of graduate students has been very rapid. This is one objective measure of the demands made upon the libraries of these institutions to contribute to research. This demand on university libraries has become greater, not only as a result of the increased numbers of graduate students in a given group of institutions but also because of the growth in number of institutions giving graduate work. A further factor is the growth in size of faculties. Data on growth of graduate work and of faculties for institutions reporting to the United

States Bureau of Education are given in Figure 8 and Tables N and O (see Appendix). As a result of these developments the demand for certain materials has become so great that it is only with very great difficulty that additions in certain fields can be made to the resources of the library. What the faculty member is sometimes inclined to attribute to the weakness of the librarian is due to causes that lie entirely beyond his control.

FIG. 8. INCREASE IN GRADUATE WORK AND SIZE OF FACULTIES IN THE COLLEGE AND PROFESSIONAL SCHOOLS REPORTING TO THE U. S. BUREAU OF EDUCATION. (SEE TABLES N AND O)



An illustration may be a means of helping to make this point clear.

"The University of Washington has made special effort during the past few years to secure books for its young but promising graduate school. On account of the growing scarcity of periodicals and the serial publications of academies and learned societies, purchases have been concentrated upon this type of material. From titles selected from departmental requests, the library committee caused the preparation of a preferred buying list of the most essential items. On this list the sets of supreme importance were double-starred. One copy of the list thus prepared was submitted for quotations to the chief library agent in each of the leading European countries. From the resulting offers it has been impossible during the past six years to spend even the modest amount of money available. Not a single quotation has been received from any source on complete sets of any of the double-starred items.

"As a consequence of this failure to make proper headway towards the acquisition of those necessary books which must form the background for any extended research, I was sent to Europe to establish personal relations with dealers, to place direct orders and to examine existing book stocks. I devoted four months to visiting the principal book establishments in England, Scotland, The Netherlands, Germany, Italy and France. Some excellent material has been obtained in this way and the personal relations thus established will doubtless make matters easier so far as future orders are concerned.

"One fact however stands out above all others obtained from this first hand observation of European book stocks, namely, complete sets of fundamental research publications are scarce and in many cases the available supply is already exhausted. Some of the items on the list were easily found, but in a considerable number of cases the sets purchased were the only ones encountered in Europe. Of a number of the most important items desired not a single set was located. On one item requested by many departments in the University, I was informed by a dealer in one of the smaller cities that he had already six standing orders for the set from as many American libraries. Another dealer speaking of a desired set said, 'If this should come into the open market all of the principal dealers in London will bid for it and the library with the longest purse will pay the bill.' Speaking of a group of German periodicals, our Leipzig agent confirmed the statement previously made by letter, 'Germany is already sold out. These magazines are no longer to be had.'

"These experiences of the past summer are offered in evidence of a condition already understood or suspected by a considerable number of librarians in the United States. The gradual exhaustion of the market has been progressing steadily for years. The heavy buying that followed several years of interruption by war, increased no doubt by a wish to take advantage of the favorable state of exchange, has suddenly sent prices soaring skyward and made strikingly evident the shortage in international books. Emphasis has been thrown upon a condition already developing and bound to arrive regardless of the war."[1]

Quite obviously these conditions are beyond the power of the librarian to remedy. In view of the limited supply of printed materials available in certain fields of knowledge, it becomes evident that it is no longer possible for each library to be strong in all departments of knowledge. Money with which to buy will not correct this situation.

If there is to be the largest possible development of research in this country, there will need to be fuller definition on the part of higher educational institutions of the types of research they will undertake. These limitations should be established in the interests of scholarship and as a means of effecting financial economies. There are fields of research so specialized that there is need for only a limited number of centers. In some fields of knowledge the printed resources are so limited that there are enough for only a very few centers. These conditions call for a coordination of effort on the part of higher institutions of learning. An arrangement of this type lies beyond the power of librarians. It is a problem for trustees, administrative officers, and faculty members. It means that most institutions will have to make a choice between mediocrity of work in a wide range of subjects and a relatively high type of research in a limited number of fields.

As has been implied, the acceptance of this idea of cooperation in the development of library resources does not stop with the library. It raises at once the whole question of cooperation in the development of graduate instruction and research, at least in certain fields. In discussing this problem before the twenty-first annual conference of the Association of American Universities, James R. Angell, president of Yale University, made the following statement:

"At no point in the present administration of research interests in educational institutions is there perhaps more need for searching analysis of present practices than in the methods, or lack of methods, whereby particular lines of research are undertaken. Almost every great university is put in the position of attempting to foster all the major fields of research and an unlimited number of accessory ones. Local pride has repeatedly led to the effort to develop forms of research which may be intrinsically of minor consequence and altogether anomalous in the regions where they are undertaken. State institutions are constantly subjected to pressure of this character, leading to the formation of new departments, some of which have no substantial justification beyond the gratification of the ambition of some energetic professor or some small group whose interests will be theoretically promoted in this way. There exists at present no adequate device by which an indefinite continuation of these conditions may be avoided. Indeed, it is but quite recently that there has grown up any considerable body of opinion recognizing the wastefulness of the present practices. It is of course a matter of the utmost delicacy, and one calling for great breadth of knowledge and great sanity of judgment, to attempt in any fashion to allocate responsibility for particular kinds of research. At the very outset one is met with the contention that any such artificial distribution of functions would operate seriously to cripple individual initiative. And yet the contrary consideration is quite as urgent. To equip every university in the country to carry on research in agriculture, in forestry, in all the branches of engineering, and, for that matter, in all the physical, chemical, and biological sciences, would obviously be wasteful of equipment and physical resources, and all but impossible of execution in the matter of personnel. Certain rough lines of division are in point of fact at present operative. Some institutions by mere virtue of the fact that they secured an early occupancy of a field have developed to a considerable degree of advancement research work in special directions which might perhaps have been more advantageously developed elsewhere. But meantime, being in possession of the property, it would be ill-advised to attempt to dispossess them. In any event while it is futile, and were it not futile it would be unwise, to attempt any arbitrary and coercive methods in the solution of this general problem, it is not too much to hope that by intelligent voluntary co-operation something may be done to safeguard the situation against an indefinite continuation of the present condition."[1]

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[1] Charles W. Smith. The Vanishing Supply of Research Periodicals, *The Library Journal,* XLIX (1924), p. 117.

In the judgment of the writer this is one of the most important problems treated in this report. It will also be a very difficult one with which to deal as it runs counter to most of the current practice. In spite of the difficulties it presents, there is much that can be done if those administratively responsible become convinced of its desirability. It is hardly to be expected that institutions that have already well-developed lines of research with good library facilities will drop them. On the contrary, the proposal implies that these would be the very lines with which they would go forward. There were, however, but few libraries among those included in the study that were not, as a result of pressure from faculty members, attempting to secure library resources for research in the fields in which they are not now strong and in which the supply of printed matter is so limited that a strong collection could not be obtained.

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[1] The Organization of Research, *Journal of Proceedings and Addresses of the Twenty-first Annual Conference of the Association of American Universities* (1919), p. 29.

Guy S. Ford, dean of the graduate school of the University of Minnesota, has made a forceful statement bearing on the interests of graduate schools in this problem:

"The interest of the Graduate School is in the reasonable accessibility of the necessary books. That may be secured for practical purposes when a long run of a rare periodical, a first edition, or a valuable set of source material is in the local city public library or in the library of a neighboring University. At present, too many Universities are buying without due reference to the neighboring collections. Four or five Universities within a radius of a hundred to two hundred miles of each other in both eastern and middle western sections are bidding against each other, paying higher and higher prices for rarely used sets to which occasional access is necessary, but sets of which one or two in a section would by the courtesy of inter-library loans supply all needs.

"The matter of competing in single purchases as between libraries that should be cooperating is significant of a more expensive competition into which we may be led by imitation or the zeal of departments. I hesitate to name the Universities whose libraries—irrespective of their faculties—furnish 'unrivaled facilities for studying western history'; the list of these 'strong in the pamphlet and other source material of the French Revolution' is equally extensive. The next decade will see us bidding and building against each other for South American and oriental history, politics, and literature—not a selected country or period or phase—but all South America and the whole Orient. All the middle western and perhaps the eastern Universities may have to check influences within and without that would want to make them the greatest centers for the study of the history, literature, and institutions of all the countries which have contributed large numbers of immigrants to the tax-paying population of their section. All this means spreading out—horizontal distribution of funds—mediocre results at greatly enhanced expenditure.

"Is it wise or necessary or possible for all Universities to be all things to all advanced students? Are not the responsibility and the necessity upon most of us to be respectable in our library equipment in all the fields—where the personnel of the faculty justifies work for the Master's degree; to be good in what our location or traditions or special departmental strength justifies and to be the best where all these three combine and make us the logical place where library excellence is to be expected? Should we not make our special treasures immediately available by special bibliographies, by generosity in inter-library loans, accepting commissions to photograph or copy whenever the demand is made and the expenses paid? Then in those fields where we are wisely and respectably mediocre let us depend upon loans ourselves and send our students on to the greater opportunities that offer elsewhere in the fields where we have determined not to be a claimant for pre-eminence."[1]

Reference has been made to the fact that competition among the libraries is not only greatly increasing the cost of securing material but, much worse, results in the scattering of the material. From the standpoint of a large development of research, it would be better if there were more concentration of the materials treating of highly specialized fields of knowledge and of those in which there are distinct limitations in the supply of printed materials.

Would it not be possible to divide the country into regions and in each secure agreement among the educational institutions with reference to the lines of highly specialized research each will undertake? In some instances there may not be need for more than one center in this country. When the regional divisions have been determined, there should be cooperation among the libraries of each region in securing the needed book resources. To secure the cooperation of the librarians would not be very difficult. Many of them realize the weaknesses of the present practices and are in favor of correcting them. References will be found to the problem in their literature. A portion of a statement dealing with this question follows:

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[1] The Library and the Graduate School, *Journal of Proceedings and Addresses of the Fifteenth Annual Conference of the Association of American Universities* (1913), pp. 43-44.

"This leads us very naturally to consider this problem of supplying the full record of science to our men of science. It is not a local problem merely. It is also a national problem. The difficulties in the way are partly those of finance, partly those of time, partly competition, not alone among American libraries, but with those of Japan and China, of South America and South Africa, of New Zealand and Australia. Very much of the material required by this group before me was published in but a small edition, running from a couple of hundred in the case of certain very costly books, to a thousand or more for certain journals. In their beginnings journals and transactions are frequently issued in only sufficient numbers to meet the actual number of subscribers. You all know how the wastebasket yawns for odd numbers, and what chances of destruction stray copies must run between careless or absent-minded owners, house-maids, janitors, the frugal housewife and the rag-man. Wars and disasters intervene to reduce the numbers of copies in existence. I have no hesitation in saying that the possibility of securing sets of certain very much valued books and journals is diminishing even to the vanishing point with each year that goes by. The world war was destructive of reserves, caused restriction in the number of copies printed, and increased enormously the cost of printed matter of all sorts. In some cases known to me no copies were printed beyond the actual home demand, totally ignoring foreign or enemy subscribers. I know of one American journal which actually printed last December one hundred and fifty copies less than its regular subscription list, because paper took a sudden jump in price and only the stock on hand was used. This sort of thing makes the task of securing sets anything but easy. The chief source of supply is the libraries of deceased professors as they come on the market—and professors who own and bind long files of journals and transactions are becoming rarer with the high cost of living and the decreasing amount of shelf space in modern houses and apartments. The necessity of quick action cannot be stressed unduly in view of the present circumstances. It is not a question any longer of waiting for a favorable opportunity. Rather are we faced with the necessity of getting what we need whenever the chance comes up. The competition from the newer countries and the newer libraries is keener every year. Thirty years ago there was no large scientific library west of us—not one. Now we may mention the Universities of Chicago, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, California, Leland Stanford, Washington, and the John Crerar Library, without even exhausting the list of institutions of the first rank—for special libraries in a small field are equally dangerous competitors for the valuable books and sets in their own line. In those same thirty years South America, South Africa, Japan, Australia, and Canada have come into the field eager to provide their scientists with the record of science. McGill University bought just before me last fall very many sets of journals long on our list of desiderata. I found Japanese buyers had been everywhere with the government purse to draw on. The fact is that we must both hasten our own purchases and combine with our neighbors if American learning is to be kept on an equality with that of Europe.

"The need of cooperation and of a policy looking to the elimination of certain forms of competition is brought home to me more keenly each year. We should be able, it would seem, to agree on certain fields which we can cultivate intensively, securing everything of moment in them, as far as we can raise the funds. Certain general works, general society transactions, journals of a wide appeal we must *all* have. But must we—take a concrete case —*all* try to buy the publications of the smaller and less important societies? May not half a dozen sets spread over the country suffice with the development of the inter-library loan and of photo-duplicating machines? Can we not agree with Chicago, Urbana, Cleveland, Columbus, Pittsburgh, and Ithaca on a limit in purchasing such local society publications? Thus we might *all* save money, keep down prices, gain in the total number of sets available, and lend freely between ourselves. This matter seems to me highly important—even vital to our success. It has been much discussed among librarians. There would be small difficulty in arriving at a policy, if it were a matter to be decided by librarians alone. But it concerns far more deeply the faculties of the various universities and their governing boards. We librarians cannot, for example, get together and agree on a limitation of our several fields of specialization. We must first gain adherents to a policy of limitation, then form an agreement through some joint committee of professors, and finally secure the consent of boards of regents and trustees. The facts are most clear and patent. We simply cannot all have everything. There isn't enough to go 'round, nor money enough to buy everything. What we must do, then, in common sense is to stop trying to get everything in each library, and go for the things we can reasonably expect to secure in cooperation with our neighbors. If any one doubts the success of this plan, I refer him to the results of the agreement between the Chicago libraries made in 1895 and carried out since to the lasting benefit of scholarship. There is every reason why we should enter into a similar pact with neighboring libraries."[1]

Such practical problems as the extreme loyalty of the alumnus who cannot tolerate having a rival institution possess a better Goethe collection than his alma mater would have to be met; also that of the prospective choice for a faculty position who stipulates as one condition of his acceptance the practically unlimited expansion of the library on the side of his research interests. The result frequently is the collection of materials which remain unused when the faculty member migrates. Several cases were found in which very expensive collections remained unused as a result of this procedure.

A further difficulty that would present itself would be the inability of an institution to give to each graduate student, regardless of his interests, library resources for the conduct of his research. This would make it necessary for him to go to another institution for at least a part of his work. It should be pointed out that this problem is not peculiar to the proposed plan. It is also a characteristic of the present unsystematized procedure. The proposed plan would have the advantage of making it possible for the graduate student to find the specialized materials in which he is interested concentrated at one institution. There is no doubt at all but that it would be cheaper in many instances for institutions to pay all the expense incident to his going to another institution to secure access to the materials he needs for his research than to purchase them, even when this is possible.

It should be relatively easy for the librarians and research workers of a given region to decide upon the fields in which the materials are so limited or so expensive that it is either impossible or too costly to duplicate collections. When this has been done and the specialized interests of each institution are known to the others, the cooperation could be readily carried forward. A more serious difficulty to be met is that of securing some agreement on the part of the universities with reference to the highly specialized fields in which each will undertake research and graduate instruction. If an agreement were reached on the development of library resources that aspect of the problem might eventually be more easily solved.

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[1] William W. Bishop. The Backs of Books (Baltimore: The Williams & Wilkins Co., 1926), pp. 289-92.

It would be desirable to have some organization sponsor such a program of cooperation. Without some general attempt the cooperation is almost certain to be confined to such more or less accidental efforts as will be mentioned later. This is not adequate. Would it not be appropriate for the Association of American Universities to interest itself in such a program? It is a matter of vital concern to graduate schools.

It should be recognized that a measure of cooperation is to be found at present. It exists between Stanford University and the University of California, with reference to the Hoover War Library and the Bancroft Library, respectively. The University of Michigan Library does not buy genealogy because this is a field in which the Detroit Public Library specializes, nor does it endeavor to secure unusual books that are to be found in the White Collection of the Cleveland Public Library. There also is cooperation between the New York Public Library and the Columbia University Library. The library of the University of Minnesota has an agreement with the Minnesota Historical Society covering genealogy and local history. It is also cooperating with the Minneapolis Public Library and James Jerome Hill Library of St. Paul with reference to the purchase of certain kinds of materials.

It is unnecessary to point out that this proposal does not imply that each university will not have the publications necessary for its undergraduate work. Neither does it mean that among the cooperating institutions there shall not be research in each of the institutions in such major lines as are appropriate to the institution and in which there are book resources as well as competent workers. It means only that it will be applied in the highly specialized fields, or in those lines in which the publications are so limited that it is impossible to secure adequate resources. It means concentration of resources rather than their dispersal, with the result that each institution will recognize the special interests of its neighbors. It is believed that this type of cooperation if continued over a period of fifty years would mean a larger development of research than can possibly result from the present procedure.

CHAPTER 4

College, School and Departmental Libraries

COLLEGE LIBRARIES

ONE of the most perplexing administrative problems with which the university librarian has to deal is that of his relationship to collections of books that are outside of the central library or that are in the central library building but are more or less independent of him. These may be materials designed to meet the needs of schools or colleges such as law, medicine, engineering, and agriculture, or they may be collections relating to the work of one or more departments, e.g., chemistry, English, economics, etc.

In planning this aspect of the study separate forms were made for reporting data on libraries that served schools or colleges, and those designed to meet the needs of one or more departments. It was found that in many of the institutions there was little or no difference between the relationship of a school or college library and that of a departmental library to the central library. However, in reporting the results found, those libraries serving the needs of a school or college have been considered as college libraries regardless of their relationship to the central library.

LAW LIBRARIES

Among the college libraries those of the law schools have in most of the institutions the largest measure of independence. In several of the institutions studied they were completely independent. In some cases the catalogs of the general libraries did not even show the resources of the law libraries. The closest relationship administratively between the law library and the general library for any of the institutions reporting on this point was found in California, Illinois, and Oregon. In each of these institutions, books are purchased and cataloged by the general library and copies of the cards are located in both the general and college catalogs. The person in charge of the library is in each case selected by the law college and is on the budget of that college. Between the unified condition represented by these three institutions and complete autonomy on the part of the law library, varying degrees of independence were found.

Members of law faculties were inclined to discount the value of the trained librarian for the law library. They expressed the view that the books in the law library are of such a nature that specialized library training is of little use to one who handles them. After hearing both sides of the question, the writer cannot escape the conviction that this independence or semi-independence of the law library is largely a matter of tradition. It is doubtful if the commonly used argument to support its independence has any more force in law than in chemistry. It may have had considerable validity when law libraries consisted almost entirely of statutes and court decisions. However, in the more progressive colleges of law Elihu Root's view that "the only way to clarify and simplify our law is to reach the lawyer in the making so that when he comes to the bar he will have learned to think not merely in terms of law but in terms of jurisprudence" is now accepted. Manifestly, the acceptance of this view will result in a material modification of the law library. This change will mean that there will be a much more pronounced advantage in having the law library of the future an integral part of the university library service than has been true in the past. This statement does not necessarily imply the consolidation of the books of the law library with those of the general library. It does mean, however, a centralization of the control of the library service.

MEDICAL LIBRARIES

In a few institutions the medical library was found to be entirely independent of the university library. In a majority of the cases in which this was true, the medical college and the general library were located in different cities. At Michigan, Minnesota, and Yale, the medical libraries were not only a part of the university library service but were housed in the main library building.

Unless the schools or colleges are located at some distance from the main university, it is difficult to justify the degree of independence that college libraries frequently have. Especially is this true in the case of law. There were evidences of inadequacies in their service not found in those that were an integral part of the university library service. The latter portion of this statement refers to centralization of service and not to the centralization of the printed resources. Consolidation of books is a very different question and will be considered later in connection with the discussion treating of departmental libraries in the more restricted sense.

A view of conditions on several important points may be obtained by an examination of Table P, Appendix.

DEPARTMENTAL LIBRARIES

Much difference was found in the use of the term departmental library. In this discussion small collections of handbooks, dictionaries, laboratory manuals, etc., that are usually found in each department, are not included. In some of the institutions these are included in the inventory of library resources, and in others they are not. It is relatively a minor matter as to whether they are inventoried by the business office or the library as long as the purchases are limited to books of the sort indicated. However, when they are checked through the library there is less likelihood of unnecessary duplication. This result may be obtained, as is done in many institutions, by having all book purchases made through the library.

The term departmental library will be applied to collections of books, not designed to serve the needs of a college, that are located in some building outside the central library. It will also be applied to special collections found in the general library building that are administered independently or semi-independently of the general library.

The relation of departmental libraries to the university library was found to vary greatly in the institutions studied. In a few instances they were almost entirely independent, but in a large proportion of the cases they were in reality branches of the main library. This latter condition seems to represent the present trend.

In some respects Yale is an exception to this trend. In general, departmental libraries at Yale are composed of books that are also in the central library. With regard to financing, they are entirely the obligation of the departments, both in the matter of addition of printed resources and in service. Usually the books are purchased by the departments but some of the cataloging is done in the general library. The departments pay for this work. In many instances cards for books that are to be found in these libraries are filed in the general library as well as in the departments (Table Q, Appendix). In many cases the librarians in charge of these departmental collections have had experience in the university library. This makes for closer relations with the general library. A comparison of this policy with the present trend toward centralization of service will be made at a later point in the discussion.

VIEWS OF FACULTY MEMBERS ON DEPARTMENTAL LIBRARIES

Views of faculty members were obtained in a number of institutions regarding the need for departmental libraries located outside the main library building. It was found that the great majority of those working in the humanities were opposed to this arrangement. In the case of the sciences and in technical fields the force of opinion was almost as strong for the departmental library. The only exceptions to this general statement were the views of a number of teachers of biological sciences who were favorable to the consolidation of the book resources.

The views of those opposed to the departmental library were expressed in such statements as the following:

"All research materials and the materials for advanced students should go into the central library."

"Before our books were centralized one frequently had to search in five or six departmental libraries for a desired publication."

"On the humanistic side all knowledge is a unit."

"The very ready accessibility of books for each department really defeats its own end when you get beyond those books in the departmental library, unless there is a great deal of duplication."

"The overlapping of fields of knowledge is so great that the departmental library is a distinct disadvantage."

"There is too much overlapping of interests to make the departmental library desirable."

"No one looking at it from an institutional point of view can favor the departmental library. Those who favor it are considering only their personal convenience."

Those favoring the departmental library were fully as positive in the views expressed as were those opposing it. The statements which follow are illustrative of the statements made by supporters of the departmental library:

"It is absolutely necessary for the advanced worker to have ready access to all literature. This means the books must be right near the laboratory. It would be fatal to have them in the general library."

"It is very important to have ready access to a library, otherwise references are not likely to be run down. All the biological books should be together."

"I do not see how a chemical library can be of much use unless it is located in, or very near, the chemistry building. So many of our references require hurried trips that it is certainly a great convenience to have all our own material segregated."

There is no occasion in this connection to go over the usual pros and cons of the departmental library. They are generally known. There are certain phases, however, that are not always recognized in dealing with this problem. The size of the campus and the location of the library building with reference to the other buildings is an important factor in determining the extent to which it is necessary to go in making provision for departmental libraries. Unfortunately, many of the institutions have completely outgrown their original plans, and it is not always possible at the present to get the library as well located as is to be desired. The college devoting most of its efforts to the liberal arts presents a very different problem from the university. In institutions of the former type a central library should be all that is necessary aside from small collections temporarily lent to departments. The technical college dealing with a relatively restricted field of knowledge does not have great need for departmental libraries.

Each institution should be studied with the idea of so locating the library resources as to make for their largest possible use by students and faculty. Some evidence was found indicating that there are still librarians who are obsessed with the idea of getting all the books into the central library. But if the proportion encountered in this study is representative of conditions generally, the total number is not great. Most of them recognize the validity of the principle stated above. The difficulty lies in getting a basis in fact for the decisions that must be made in carrying out such a policy. Barring the exceptions noted above, there seems but little doubt that there is a place for the departmental library in the efforts that are being made to realize the ideal of having books readily accessible. At least this is true in the case of the university.

RELATIONSHIP OF THE DEPARTMENTAL LIBRARY TO THE CENTRAL LIBRARY

The institutions included in this study present three types of situations with regard to the administration of departmental libraries. In one group the policy results in a large measure of autonomy, if not complete autonomy, for the departmental library. In the second group the department collections were an integral part of the service of the central library. The third group had no clearly defined principles of procedure, or at least such were not manifest in the conditions found. An institution in this group would ordinarily have some departmental libraries illustrative of each of the preceding types of relationship to the central library.

The conditions in the University of California are fairly representative of the institutions belonging to the first group. The regents' orders relating to departmental libraries in that institution are as follows:

"Departmental libraries shall be considered part of the working equipment of the departments to which they are attached, to be provided in the same manner as other equipment, viz., by purchase with funds allowed the departments in the annual budget, or with special funds otherwise available for the use of the departments.

"The book funds of the general library shall not be diverted to the purchase of books for departmental libraries.

"The heads of departments shall have responsible control of the books in their respective departmental libraries, and shall see to their proper care and use under such general regulations, applicable to all departmental libraries, as may be approved by the Library Committee.

"The Librarian shall have authority to deposit permanently in departmental libraries duplicates from the general library; and also, with the approval of the Library Committee, to deposit in departmental libraries, subject to recall, such other books from the general library as may be required exclusively in the work of the department concerned.

"The Librarian shall make an annual inspection of departmental libraries for the purpose of reporting on their general condition. All books acquired by the general library, or by departmental libraries, by purchase, exchange or gift, shall be recorded by the general library, and the departments concerned shall cooperate with the general library to this end."[1]

Librarian Harold L. Leupp makes the following comment on the operation of the system in his 1924-25 report to the president of the university:

"The departmental library situation continues unsatisfactory. The loss this year is 425 volumes (net) from a total of approximately 62,000 departmental books. The standing orders of the Board of Regents place responsibility for the organization and maintenance of departmental libraries squarely upon the departments concerned, prohibiting the use of General Library funds for departmental library purposes; but they also require the Librarian to make an annual check of departmental libraries. This procedure is expensive, produces some friction, and results in nothing tangible, since the departments are required neither to replace missing books nor to so improve their service as to minimize loss. Since he exercises no control over their administration, I recommend that the Librarian's responsibility with respect to departmental libraries be limited to oversight of the General Library books on deposit therein, numbering now about 12,700 volumes."[2]

In contrast with this policy may be stated that of the University of Illinois. The following statements will show a distinctly different procedure:

"For the purpose of defining the Library policy of the University, it is determined:

(a) That all books, pamphlets, maps, etc. (other than account books and books of record), purchased with University moneys, shall be deemed to belong to the University Library.

(b) That all parts of the Library shall be in the custody of the Librarian, who shall be responsible for the condition of the same.

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[1] Taken from the Statutes of the University of California.

[2] University Library. Preprint from the Annual Report of the President of the University, 1924-25, p. 4.

(c) That all reference books and all periodicals, magazines, and newspapers, shall be made as easy of access as practicable to all patrons of the Library, and that no limitations not necessary to their preservation shall be placed on their free use.

(d) That all other books, except such as are referred to in the next paragraph, shall be delivered for use by the Librarian or assistant only on a proper call.

(e) That books which are purely technical and relate to the work of a single department only may be taken to that department under such regulations and for such time as the Librarian may determine; but the Librarian shall not thereby cease to be responsible for their safe keeping and proper use."[1]

It is evident from these statements that the policies of the two institutions with reference to departmental libraries are radically different. In this connection a comparison should be made of the service rendered through the departmental libraries of the two institutions (Table Q, Appendix). In Illinois there are ten departmental libraries with a paid assistant in charge of each, and all are open for twelve hours a day. In California there is a relatively large number of libraries classified as departmental, although many of these have very small collections. The ten largest may be taken for comparison with those of Illinois. In seven of these libraries there are paid assistants in charge, and three of them are open ten hours or more daily.

The policy pursued in Michigan is quite similar to that in Illinois except that a considerably larger proportion of the books are in the general library. This is to be explained partially at least by the inadequacy of the library building at Illinois. A new building was being erected at the time this study was in progress. Undoubtedly a larger percentage of the books is to be found in the new building. In Michigan there are five departmental libraries with a paid assistant in charge of each. Of these, four are open ten hours a day or more. The general library purchases all books, catalogs them, and cards are placed in the catalogs of both the general library and departmental libraries. The assistants in charge of these departmental libraries are on the pay roll of the general library.

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[1] Extracts from the Laws of the Board of Trustees of the University of Illinois, p. 23-24.

The policies of Illinois and Michigan are receiving considerable acceptance in other institutions.

In developing its plans, Minnesota has recently moved toward centralization of its library service and also toward a much larger measure of consolidation of its library materials than previously existed. The following resolutions were passed by the regents on June 17, 1924[1]:

"1. That hereafter no separate unit of the University Library be established or maintained outside the general library except with the official approval of the President and the Board of Regents.

"2. That the University librarian be directed to make provision under his general control and supervision for the various units of the University Library in harmony with the previous recommendation and that he shall report to the President and the Board of Regents any modification of this policy which may seem necessary.

"3. That, in order to enable more accurate records of University Library activities to be kept, reports shall be made to the University librarian, by those in charge of any unit of the University Library, of such matters as it may be necessary or desirable to include in any general or special report of the University librarian."[2]

This action has not resulted in complete consolidation of library resources. Certain school and college libraries, also the library of the department of geology, are outside the main library. The need for ready accessibility to certain materials was recognized by action taken by the library committee and the administrative committee of the senate. The resolution is as follows:

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[1] The original resolution passed in 1923 is:

The University Library comprises all books, maps, charts, manuscripts, and similar documents purchased out of University funds, or acquired in any other manner by the University, except such as are of an administrative nature and such maps and charts as relate to, or are used in the internal organization of the several departments. For purposes of administration, the University Library consists of the following units:

a. The General Library.
b. The College Libraries.
c. The Departmental Libraries.

The University Library is under the direction of the University Librarian, who is appointed by the Board of Regents, and is directly responsible, through the President, to them. He is responsible for all matters related to its administration, subject to the provision in the Constitution of the senate that "each Faculty (or Executive Faculty if so organized) controls the internal affairs of its own College or schools, including: the selection and conditions of use of its college and departmental libraries and subject further to such limitations as are contained in the rules governing the Library Committee."

[2] The University Library. Text extracted from the Report of the President of the University, 1924-25, p. 222.

"Books, periodicals, maps, and similar material retained in or lent to colleges or departments outside the general library of the University or its approved branches shall be confined to such as are in constant use in the daily work of the college or department. The cost of any and all replacements of these books due to loss or misuse shall be charged against the general supply funds of the college or department to which they are lent or in which they are retained."[1]

Under this policy limitations on the extent to which it is desirable to carry consolidation have received recognition. This, however, has been accompanied by a pronounced tendency away from the conditions still to be found on some campuses by which portions of the library are virtually office collections. Frequently these collections are available for use only after locating a member of the department who has a key to the room in which they are kept.

In bringing about a change of this nature, many of the scattered collections are brought into the central library. Others are consolidated in groups of such size that they may be administered economically. Trained helpers are in charge. This results in collections' in closely related fields of knowledge, such as biology, zoology, and botany, being consolidated. It does away with the conditions that were found in two institutions as a result of which separate libraries were maintained in the same building for lines of work as closely related as botany and zoology. In one instance the two libraries were on the same floor. Unfortunately the location on the campus of related departments is not always such as to make consolidation practicable.

In Tulane University and in the University of Cincinnati relatively decentralized library services were found. In the former there were three departmental libraries, none of which was open ten hours a day or more. None had a paid assistant in charge. In two cases the books were purchased by the library, and in one by the department. In all instances cards were located in both the central library and the departmental libraries. In Cincinnati there were seven departmental libraries, none of which was open ten hours a day or more. There were in the seven libraries four paid assistants. There were cards for the books both in the departmental libraries and in the general library. In both libraries the students could draw books from the departmental libraries for over-night use.

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[1] Ibid., p. 223.

Institutions were found in which such questions as whether or not a periodical should be taken for a given year, whether or not periodical literature was to be bound, and the type of binding to be used were left entirely to the departmental libraries. These conditions were strongly censured even by the faculty members who were most favorable to the departmental library. Advanced students also objected strongly to the limited number of hours that many of the departmental libraries were open.

REPORT ON LIBRARY CONDITIONS AT THE UNIVERSITY OF CHICAGO

In connection with this consideration of decentralization of service, it is of interest to consider a statement from a report made by an institution in which the policy was in effect for a period of years. Such a statement is to be found in a report made by a committee of the University of Chicago. This committee consisted of representatives of both faculty and library staff. The following statements are from the report:

"The establishment in 1892 of a considerable number of Departmental Libraries and their subsequent development without adequate co-ordination or central control of purchases, catalogues, classification systems, and rules had, by 1914, led to a condition which clearly demanded the attention of the Board of Libraries. . . .

"The Committee held its first meeting on November 21, 1914, with Dr. Burton, Director of the Libraries, in the chair, and Mr. Hanson, the Associate Director, acting as Secretary. A report on conditions in the Libraries was read which aimed to point out some of the more serious shortcomings of the present system.

"It called attention, among other things, to the fact that the strong interest of the University from the beginning in research work, accompanied as it was by insufficient funds for the development of the Libraries, and inadequate general supervision, had led to a disproportionate emphasis on purchase of books as compared with cataloguing, binding, arrangement, and preservation, to a disproportionate development of the Departmental Libraries as compared with the General Library, and to inadequate coordination of the former with one another and with the General Library. In particular some of the Departmental Libraries had acquired and were acquiring books outside their proper fields, books on the same subjects were found in several different libraries, sets of books remained incomplete, fragments of the same sets or series were found in different libraries, and books, especially serials or collections, of interest to several departments were often found, not in the General Library, but in some one Departmental Library. When to these conditions it is added that some Departmental Libraries had reached the limit of their space, it was evident that the time was ripe for some modification of the practice hitherto followed in respect to the purchase and distribution of books."[1]

SPECIAL COLLECTIONS

During the progress of this study there were found examples of two types of problems somewhat related in the difficulties they present to the departmental library. The first of these is that of special collections administered more or less independently of the general library. The Bancroft Library of California and the Hoover War Library of Stanford are examples. In the case of the former, although it is housed in the main library building, it is administered independently of the general library except that the books are purchased through the order department of the general library. In the judgment of the writer the policy followed at Yale and Cornell, by which special collections are made a part of the general library but placed in charge of curators, is designed to make for a more unified and complete service with less expenditure of funds.

In this connection it should be noted that it is very important for the librarian to utilize the knowledge and energy of faculty members who are in position to contribute to the development of the library. For the librarian to handle interested faculty members in such a manner as to repress their interest is a mistake, as long as these interests are in harmony with the accepted policy of the institution in the development of its library.

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[1] Report of the Committee Appointed in November, 1914, to Investigate the Relations of Departmental Libraries in the University of Chicago, p. 1-2.

Evidence was found that in some instances the special collections had been established because of the indifference of the general library to the research and instructional needs of certain phases of university work. Municipal reports are illustrative of the type of material that is likely to be found in independent collections. In one instance a librarian justified the indifference on the part of the library to a department's need for municipal reports by saying, "They are difficult to handle." In other institutions the following statements were made by faculty members:

"The library makes no adequate provision for the care of fugitive materials. The result has been that the department of economics has been forced to do what the library should have done. From our funds we have provided a librarian to take care of documents." (This person is not a member of the staff of the central library.)

"The library should assign some one to care for the pamphlet material. It is not adequately looked after at present."

These quotations express a view that was set forth by faculty members with fair frequency. The growth of documentary material has been rapid. In certain departments of knowledge it is essential for research and instruction. As a result, if libraries live up to their responsibilities, they must make provision to care for this material. In Stanford University the recognition of the importance of material of this character has resulted in the formation of a department of documents in the library organization. For many institutions this seems to be a wise step considering the very large amount of correspondence and careful following of the activities of commissions, boards, etc., that are needed if an even reasonably complete collection is to be built up.

Special collections were found in the early stages of development during the progress of the field work. The origin of these collections varies somewhat, but from the observations made by the writer it is evident that frequently they are started with little or no idea that they will assume the proportions they ultimately reach. A faculty member interested in a certain field of work begins collecting material. In the early stages the collection, arrangement, and care of the material are looked after by the faculty member with the assistance of a clerk or student assistant. Eventually the material collected assumes such proportions that a full-time librarian is needed if the material is to be kept up to date and given proper care.

The argument is not against such special collections. There is little doubt but that material brought together in this manner is desirable from the standpoint both of instruction and research. The argument is against the building up of such collections independently of the general library and without consideration of their future. When ventures of this type are undertaken, the librarian and other administrative officers of the college or university should be taken into the counsels from the beginning. The relation of these collections to material already on the campus, the demand for funds that they will ultimately make, and the best arrangement of the material are illustrative of the problems that should have consideration.

The second problem relates to bequests of books with restrictions of such character that they increase the expense of their administration by the library. A few examples of such were found but most of the institutions included in this study have reached the point where they will not accept books under restrictions that closely limit their use or greatly increase the expense of handling them. Librarians can cite many illustrations in which prospective donors have been quite willing to give without restrictions when they see the handicaps such restrictions would place on the libraries.

MOVEMENT TOWARD CENTRALIZATION OF LIBRARY SERVICE

Undoubtedly many of the institutions having a relatively decentralized library organization will as time goes on move toward centralization. To effect the change is not easy. In making it, librarians and administrative authorities should recognize that faculty members will do their best research and teaching only when they are relatively free from irritation. It is better to wait for some time than to slow up the productive work of an individual or a department by an abrupt invasion of what the individual or the department regards as its library prerogatives unless there is serious interference of the rights of other individuals or departments.

YALE'S PLAN

Attention has been called to the large degree of independence of the departmental libraries of Yale. In evaluating this situation it should be borne in mind that Yale's departmental libraries consist largely of books to be found in the central library. Furthermore, the central library is unusually complete in its resources. To conclude that the same policy would be as satisfactory in an institution with a limited library would be a mistake. Yale's administrative organization has the advantages of the consolidated library and the departmental library combined. In the opinion of the writer it is a more expensive one to operate than is that of centralized service and can be made entirely successful only with relatively rich collections in both central and departmental libraries. With the limited printed resources and the limited financial support most colleges and universities have, it is not a wise procedure. When Yale's policy is as well executed as it is at Yale it undoubtedly furnishes a very fine type of library service.

IMPORTANT ELEMENTS IN AN EFFECTIVE LIBRARY SERVICE

The data presented in this chapter show some of the differences between the results of a centralized and a decentralized library service. Tables P and Q (see Appendix) contain additional comparative material. As a result of the consideration of these data, and the observations made during his visits to the institutions, the writer has no hesitation in stating that he believes there should not be decentralization of library service, for the entire college or university, unless the departmental libraries are to consist entirely of duplicates. This would mean a unified library service for the entire institution with the exception of such colleges or schools as may be located in centers remote from the university. Even in these cases it would seem desirable for the librarian of the central library to have general supervision of those libraries off the main campus. This would make the so-called departmental and college libraries branches of the general library.

If this view is accepted, the following are suggested as important elements in the establishment of an effective service:

1. All books purchased should be part of the general library.

2. Purchases of printed resources will be made by the librarian. (This should not exclude the faculty from the decisions with reference to what shall be purchased.)

3. All materials should be cataloged by the general library.

4. The cards for books should be found both in the general and the departmental libraries.

5. The librarian should have the responsibility for determining the hours that each departmental library is open. (This responsibility should perhaps be shared with the department or departments involved.)

6. The librarian should be charged with the responsibility of selecting the persons in charge of the branch libraries. (It may be desirable to have this done with the approval of the department or departments concerned.)

7. Those in charge of branch libraries should be on the pay roll of the library.

8. The librarian should have authority to transfer books to the branch libraries when in his judgment they will better serve the needs of students and faculty by being placed in the branches. (There will of necessity be some restriction on the removal of certain kinds of books from the central library.)

9. Provision should be made for telephone and adequate messenger service. The messenger service should not only include services at stated intervals but also for emergencies. In the large institutions it should include a truck which is entirely at the disposal of the library.

10. College libraries should have no different administrative relationship to the central library from that of the other libraries. Provision may be made for giving them a larger degree of autonomy than is desirable for departments. This may be done by having them carry an item in their budget for library purchases, by making provision for a library committee for the college, etc.

There will be objection on the part of some administrators and officers of instruction to placing such large responsibilities as are here suggested in the hands of the librarians. They will cite individual librarians who are not capable of adequately discharging these duties. No doubt they will be right in some cases. At least that is the impression of the writer. This is not, however, the final answer. Salary, retirement allowances, faculty membership, etc., alone, are not sufficient to attract the most promising young men and women to the service of the library. A potent factor in influencing many will be the conviction that work in a library offers a genuine opportunity for constructive service. The restricted conditions under which some college and university librarians now work is not designed to make for their largest development. It would appear that the growth of responsibility on the part of the librarian and the development of individuals capable of discharging the responsibilities should go hand in hand.

CHAPTER 5

The Status of the Professional Staff

IT has been pointed out in Chapter 2, Growth and Financial Support, that during the past generation the work of the college or university library has become much more complex due to the increased demands made upon it. This is especially true in the case of the university library. As a consequence there are needed today in every large university library several persons of superior ability who possess a high type of professional education. Such persons are required for cataloging, to take charge of departmental libraries or other special collections, in some aspects of the work of the order department, in reference work, and in the circulation department.

Too many faculty members and administrative officers are prone to think of the library staff, aside from the titular librarian and one or two of his assistants, as persons who are discharging responsibilities essentially clerical in nature. True, there is much work of this kind in every library, but the activities that have been suggested call for greater breadth of scholarship and a much longer period of professional preparation than are required in positions usually regarded as clerical.

TYPES OF LIBRARY WORK

There may not be sufficient distinction made in libraries between the clerical and the professional types of service. This question was raised by C. C. Williamson in his report, *Training for library service.* If this is the case, there is no doubt but that some economy could be effected in library administration by as complete segregation as is practicable of the two types of work. In this study no attempt was made to go into the details of this problem. An activity analysis of the positions in libraries is now in progress under the direction of W. W. Charters of the University of Chicago. His report will undoubtedly furnish the basis for a more intelligent discussion of the problem than has been possible in the past.

In this study sufficient analysis of the work of the library was made to convince the writer of the truth of the statement that has been made, viz., that there are a number of positions in every large library, serving a college or university community, which require persons who should be at least college graduates with one or more years of professional education. In some instances these workers should have done graduate work in other than a professional school if they are to discharge, with the greatest measure of effectiveness, the responsibilities of their positions. This means that the requirements in professional education and experience for many of them should be comparable with the requirements for positions in the various grades in the teaching staff.

FACTORS AFFECTING STATUS OF LIBRARY STAFF

The status of this group of professional workers, in the opinion of the writer, will be an important factor in determining the quality of service in college and university libraries. The following appear to be significant elements in defining this status: salary, retirement provisions, length of vacations, tenure, relationship to faculty, and conditions governing attendance at professional meetings. At each institution information on these points was collected on the relative status of members in the higher levels of the library staff and of members of the faculty. These data were collected through the librarian and other administrative officers. In addition, a number of members of library staffs in subordinate positions were interviewed for the purpose of securing their views with reference to their status.

Very great differences were found in different institutions. In some of them all members of the library staff, with the exception of the librarian and perhaps one or two others, are classified as belonging to the clerical group. In a few institutions they are given the faculty rank which corresponds with the salary they receive. Between these two extremes was found a variety of provisions which indicated that on some points there was a partial recognition of the need for giving those in the higher levels of library service a professional status.

The institutions included in this study, with two exceptions, have given the librarian the rank of full professor, although this rank does not always carry with it all the privileges of the professorship. In some instances it comes as a result of teaching done by the librarian. Evidence was found in a few cases indicating that the position of librarian was considered comparable with that of dean. This was shown by membership on administrative committees and by salary. In a large institution there can be little doubt but that the responsibilities and demands of the position in terms of ability and education are comparable with the headship of a school or college.

Institutions in which there are associate or assistant librarians have made provision for faculty membership for these persons. A few institutions were found that had no regular provisions for faculty membership of the library staff below the positions of librarian and associate or assistant librarian, in which for special reasons a member or two besides the librarian and the associate or assistant librarian had been given faculty status. Except in a few institutions where there were regular provisions for faculty rank for members of the library staff, the question of the status of the professional part of the library staff below the levels discussed above has not been adequately answered. In a number of the institutions there was evidence of a desire on the part of administrative authorities to avoid having the issue raised. As a result the professional members of the staffs, aside from the exceptions referred to, were uncertain as to their status, or else they were classified as belonging to the group designated as clerical workers. Much evidence was found of dissatisfaction with these conditions.

One librarian reported that the only time the library staff was recognized as being a part of the university staff was when a "drive" for funds was on. In another institution a library worker of marked ability and superior professional education stated that the library staff was "invited to meetings when a large crowd was desired." In this same university on one occasion a prominent public official spoke on the campus and admission was by card. These cards were not issued to members of the library staff but a week later they were asked to show their loyalty to the institution by contributing to a publicity fund for the university.

The recognition of the titular librarian as a member of the faculty may have been an adequate method of dealing with the situation a generation ago when the staff in many of the institutions consisted of a librarian and a relatively untrained staff. It is entirely inadequate when a body of professional workers is developed such as was found to constitute a considerable proportion of the staffs in the libraries included in this study. In a substantial proportion of the library positions this procedure will not bring to the library the type of personnel that can give the service expected by students and faculty. This condition should have more consideration than it has been given by university executives.

PRESENT CONDITIONS

How may the problem be met? As has been stated, a few of the institutions apparently have solved it by providing that members of the library staff should have the status to which the same salary would entitle them if they were members of the instructional staff. Columbia and Stanford are in this group. This status carries with it such retirement privileges as the faculty members enjoy. In neither institution do members of the professional staff of the library have as long vacation periods as the members of the teaching force. This was true in all except one or two institutions. In these the faculties serve on an eleven months basis and faculty and library staff have one month of vacation. Those engaged in the library service generally stated that the character of the demands made on a library will not permit of their having as long vacations as teachers have in most institutions. They do feel, however, that it should be somewhat longer than the two to four weeks usually granted to those in clerical work.

In many institutions it would be quite impossible at the present time, and, so far as one can see, for some time to come, for all the members of the professional staff of the library to obtain faculty status. A considerable proportion of the more capable members are restive either under their present ill-defined status, or under their classification in the clerical group. Many of them feel there is more likelihood of library workers' securing improvement of their conditions by endeavoring to obtain a distinct status as librarians than by seeking to overcome the opposition that exists to their having faculty membership. Just what this status would carry with it was not always clearly defined in the minds of those interviewed. The statements made indicated that the following were involved: retirement allowances comparable with those of the faculty; vacations that will in general be more generous than those granted to members of the clerical force; more adequate compensation; privileges of attendance at professional meetings under the same conditions as obtain for faculty members, i.e., if faculty members have their expenses paid, librarians feel that members of the library staff should be entitled to the same privilege. This privilege is granted to faculty members in some institutions and not to members of the library force. They would also like the opportunity for advanced study outside of working hours on the same terms that instructors have. This opportunity is denied them in some institutions.

REPORT OF A. L. A. COMMITTEE

Since the field work of this study was completed, a report[1] has been made by a committee of the College and Reference Section of the American Library Association bearing on this subject. This committee states that the following are the factors that should be recognized in determining the status of professional members of the library staff: appropriate rank; salary; and privileges, such as vacation, pension allowance, and membership on boards and committees. In such matters as salary and pension allowance the report evidently means that the status of the professional members of the library staff should be comparable with that of faculty members in the same institution. This statement, however, is not specifically made.

The number of persons with a considerable breadth of scholarship and with a high type of professional education—the standards are constantly being advanced—serving college and university communities through the library has increased greatly in the last twenty-five years. This group will undoubtedly continue to increase in size. In interviews with faculty members one of the suggestions frequently received for improvement of the library was for a higher type of personnel. Such statements as the following were made by faculty members:

"There is too much cheap help in the library."

"Service in the library is not of high enough type. This institution (university) is running too largely to bricks."

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[1] Report of the Committee on the Educational Qualifications and Status of the Professional Librarian in Colleges and Universities, Saratoga Springs, N. Y., 1924. Mimeographed.

"The persons in charge of departmental libraries should be much better trained. They should have had considerable training in the subject represented by the library."

As will be shown later the salaries in library service have improved materially during the past fifteen years. Like teaching, however, it will in all probability remain a field of endeavor in which the financial returns are not large. Therefore it is important that the other conditions surrounding the service should be commensurate with the training and ability that are desired. If these conditions cannot be provided, it is almost certain that capable young persons will not look with favor on library service. This is especially likely to be a potent factor in the future since a large proportion of the members of library staffs are women and the range of economic activities open to women is rapidly increasing.

There should be recognition of the fact that if a better status is to be secured for persons in libraries on most of the points indicated, it will be necessary to distinguish between those doing a type of work requiring, as a minimum, college graduation with at least one or two years of advanced study, and those in which high school preparation with a very limited amount of specialized education is entirely adequate. This distinction is recognized in the following statement in the report previously mentioned:

"There is a fairly distinct line of cleavage in our library staffs between the scholarly and the technical workers, and this distinction should be borne in mind both in rating library workers and in considering the types of education necessary for them. Workers of one class do not strictly need a college education, and their library school experience may well be along certain clerical lines. Our libraries have an interest in this form of education, but the chief concern of the present report is with the strictly professional workers, whether in the fields of scholarship or of what we may call the administration of scholarship. Here seems to be demanded preparation entirely comparable to that demanded for the profession of law, medicine or engineering.

"This demand calls for recognition, not only by professional degrees from the schools giving the training, but also within the university that employs these trained assistants. This latter phase is important to the proper functioning of the librarian and his assistants as equals among equals, and also for the perfectly human reason that recognition is a cherished form of reward. Without it the present difficulty of inducing desirable young people to take up library work is vastly increased, in fact, becomes almost insuperable. This recognition should take the form of appropriate rank, salary, and privileges, such as vacations, pension allowances, and membership on boards and committees."[1]

Discussions of the status of the professional staff of the library usually make reference to salary. This subject seemed of sufficient importance to justify securing information not only on comparative salaries at the time of the study, but also to secure the data by which a comparison could be made of the increases in salaries from 1910 to 1925, inclusive.

Articles treating the status of the library staff frequently have compared the position of the titular librarian with that of the full professor, and heads of library departments with the position of instructor on the teaching staff. The writer early became convinced that the second comparison was misleading. The headship of such departments of the library as order, cataloging, reference, etc., in large libraries, would seem to be fairly comparable in responsibilities carried with the assistant professorship. A further reason for making the comparison with the assistant professorship rather than with the instructorship lies in the fact that a very considerable proportion of the instructors are pursuing advanced studies. In a large proportion of the cases it is not, therefore, a full-time position. The headship of the library department is a full-time position.

In seven of the institutions reporting there was either an associate or an assistant librarian. It was decided to put associate and assistant librarians in a group for comparison with the associate professorship.

On these bases it was decided to make a comparison of the salaries paid librarians and full professors, associate or assistant librarians and associate professors, and heads of library departments and assistant professors, respectively.

Head of a library department was defined as the headship of such branches of the service as cataloging, order, reference, circulation, etc. This organization is the one commonly found in college and university libraries and those included in this study, with a few exceptions, had such an organization. There were from three to nine such heads in each library that was organized into departments. Department head as defined in this study would not have fitted the organization in Columbia but as the financial data were not available for Columbia it is not included in this comparison.

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[1] Ibid., p. 5.

As the study progressed and the writer became better acquainted with the status of the titular librarian and the responsibilities of the position, it was decided to gather supplementary data so that a comparison could be made between the salary of the librarian and that of such positions as deanships and directorships.

The data showing the comparative salaries for these positions are in Table R, Appendix. Fourteen institutions furnished data that made it possible to determine the average salaries paid deans for the academic year ending in 1925. In only one case was the salary of the librarian[1] as high as the average for deans. Since the data were collected two librarians in this group of institutions have been given a salary status that is above the average for deans.

Nine institutions made a distinction between dean and director. In four of these the salary of the librarian equaled or exceeded that of the average paid directors.

Fifteen institutions reported data that made it possible to compare the average salary of the full professor with that of the librarian. In nine of the institutions the salary of the librarian exceeded that of the full professor.

From these data it is evident that for the group of institutions included in this study the position of librarian is better financially, in most cases, than that of the full professor. It is in the majority of cases intermediate between the full professorship and the deanship.

The writer is of the opinion that in the responsibilities that must be carried in the large university, the position of librarian is fairly comparable with the position of dean. In the smaller institution it perhaps is more fairly compared with the directorship of a school or the headship of a department. Data will be submitted at a later point in this discussion that indicates that if the financial status of the position continues to improve as rapidly as it has been improving recently, it will very generally reach the suggested status.

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[1] The institution in which this was the case did not wish to have the salary of the librarian appear in this report.

There were six institutions reporting in which there was either an associate or an assistant librarian and also the position of associate professor. In three of them the salary of the library position was larger than that of associate professor.

Eleven institutions furnished the information necessary for a comparison of the positions of assistant professor and head of library department. In only two of the institutions did the average salaries of the head of library departments equal or exceed the average salaries of assistant professors.

In considering the comparative salaries of the several positions discussed above, it should be borne in mind that the annual period of service is longer for the members of the library staff than for members of the teaching staff. There are some exceptions to this statement. In a relatively small number of cases the period of service for faculty members was eleven months. The majority of the members of the library staff serve eleven or eleven and a half months. In the other cases the period of service was ten and a half months. Many of the members of the instructional staff augment their salaries by summer school work. This opportunity is not open to members of library staffs. As a result the salary situation is more favorable to faculty members than the data of Table R, Appendix, indicate.

An exception should be made to the statement regarding the longer vacation period for faculty members in the case of deans. In the majority of institutions reporting, these officers devoted from ten to twelve months to their work. In others, in which a shorter period of service was indicated, they were expected to be available on call to take care of the duties of their offices.

RELATIVE PREPARATION OF LIBRARY STAFF AND TEACHING STAFF

In comparing the salaries of library positions with those of faculty positions, consideration should be given to the relative amount of preparation these groups have had for their work. This problem was not anticipated at the time the original plans for the study were made. However, some data have been gathered that make possible certain comparisons in the matter of preparation of heads of library departments and assistant professors.

During the preparation of this report the librarians were asked to furnish information covering the training and experience of the heads of the departments in their libraries. The data from the eleven institutions furnishing this information are shown in Table 3, page 90. These data are for the heads of departments in libraries as of March, 1927. It was decided to take these figures rather than to attempt to secure figures for the year ending in June, 1925, the last year used in most of the tables.

It was not practicable to obtain directly comparable data for assistant professors with whom the heads of library departments had been compared in the matter of salary. However, in eight institutions the preparation represented by the degrees held by assistant professors, whose salaries had been used in the comparison with heads of library departments, was taken from the catalogs for the academic year ending in June, 1925. These data are shown in Table 4, page 90. For purposes of comparison the professional education of heads of library departments in the same institutions is given. It is evident from these data that the training as represented by degrees held by assistant professors is considerably higher than for heads of library departments. Further evidence to substantiate this view is found in the fact that the median number of years spent in study after obtaining the first degree by the heads of library departments was two (Table R, Appendix). Over fifty per cent of the assistant professors had the Doctorate which usually represents a minimum of three years of study after the baccalaureate degree.

From the above statement of the situation, heads of library departments could hardly be expected to be on the same salary basis, for equal periods of service, as assistant professors. The standard of preparation would need to be set considerably higher than those represented by the institutions reporting. This immediately raises a question as to whether or not there is need for as much preparation on the part of the heads of library departments as is expected of assistant professors. The writer is not in a position to answer this question. Faculty members and librarians frequently expressed the view that more extended preparation is desirable for the more responsible positions. The analysis previously referred to, that is now in progress under the direction of W. W. Charters, should be a contribution to the solution of this problem.

TABLE 3

TRAINING OF HEADS OF DEPARTMENTS IN LIBRARIES OF ELEVEN* INSTITUTIONS**

Number of heads of departments	57	
Number having bachelor's degree only		
Academic	25	50.9%
Professional	4	
Number having second degree		
M.A.	6	36.8%
B.L.S.	12	
M.A. and B.L.S.	3	
Number having no degree	7	12.3%
Median number of years spent in study since first degrees were earned	2.0 yrs.	
Median number of years of service in libraries after first degrees were earned before becoming heads of departments in college or university libraries	5.4 yrs.	

*Ames, California, Cincinnati, Cornell, Iowa (Univ.), Michigan, Minnesota, North Carolina, Oberlin, Stanford, and Yale.

**Data are as of March, 1927.

TABLE 4

COMPARATIVE DATA ON THE TRAINING AND SALARIES OF ASSISTANT PROFESSORS AND HEADS OF DEPARTMENTS IN LIBRARIES OF EIGHT* INSTITUTIONS**

	Assistant Professors	Heads of Departments in Libraries
Number for which data were given	396	39
Percentage having:		
Doctorate	54.3	0.0
M.D.	3.3	0.0
Master's degree	15.7	12.8
Master's degree and both an academic and a professional bachelor's degree	....	5.1
Academic and professional bachelor's degree	2.5	20.5
Academic bachelor's degree	10.1	48.7
Professional bachelor's degree ***	8.3	2.6
D.V.M. or D.D.S.	2.8	0.0
No degree	3.0	10.3
Average salary for the academic year ending in 1925	$2820	$2302

*Ames, California, Cincinnati, Cornell, Iowa (Univ.), North Carolina, Stanford, and Yale.

**Data for assistant professors are as of June, 1925, and for heads of departments in libraries, as of March, 1927.

***Does not include D.V.M. and D.D.S.

CHANGES IN SALARIES

The salary data that have been considered are for the academic year ending in June, 1925. Throughout this report emphasis has been placed on trends. This same procedure has been used in the study of the relative salaries of some members of the instructional staff and of certain library positions. The period chosen was from 1910 to 1925, inclusive. In this study of trends the comparisons have been limited to the librarian and full professor and the head of a library department and assistant professor, respectively. The number of institutions that could supply the salaries for associate and assistant librarians over the entire period was so small that the second position in the library was not compared with the associate professorship.

Not all of the full professors and assistant professors of each institution have been included in this comparison. In some of the institutions included in this study, some of the professors were on a part-time basis. This was especially true in law, medicine, and engineering. It was deemed best not to include such persons. Therefore, only such persons as were devoting their full time to the work of the institution have been considered. To avoid the difficulties involved in attempting to eliminate over a period of sixteen years the members of the staffs who were giving part of their time to outside work, departments of instruction were selected in which all the members devoted their entire time to teaching. As a result only faculty members from a limited number of departments in certain of the institutions were included. In all cases at least four departments were taken. In others, all full and assistant professors were included.

Not all of the institutions were able to furnish the information necessary for these comparisons. The compiled data are shown in Table S and Table T, in the Appendix.

There were nine institutions that reported the data necessary for the computation of the salaries of librarians and the average for full professors for the year 1910. In none of these instances were the salaries of the librarians as large as the averages for the professorships. In 1925 there were ten institutions that furnished the data necessary for the comparison, and at that time in six of them the salaries of the librarians were larger than the average for full professors. In the period beginning with 1910 and ending with 1925 the average salary of the librarian in the institutions reporting rose from $2147 to $4580. In the same period the average salary of the full professor increased from $2762 to $4631.

TABLE 5

INDEX NUMBERS FOR SALARIES OF FULL PROFESSORS AND LIBRARIANS IN ELEVEN INSTITUTIONS; FOR SALARIES OF ASSISTANT PROFESSORS AND HEADS OF DEPARTMENTS IN LIBRARIES IN EIGHT INSTITUTIONS; AND FOR THE COST OF LIVING AS REPORTED BY THE U. S. BUREAU OF LABOR STATISTICS.* SALARIES: 1910–14=100
COST OF LIVING: 1913=100

Year**	Full Professor	Librarian	Assistant Professor	Head of Department in Library	Cost of Living
1910	97.6	97.0	98.6	97.1	..
1911	97.6	95.5	99.5	98.9	..
1912	98.9	96.7	100.3	100.0	..
1913	100.9	104.2	101.0	101.4	100
1914	104.9	106.6	100.5	102.3	103
1915	107.2	109.1	101.3	101.6	105
1916	108.2	116.4	102.4	108.6	118
1917	106.9	116.4	108.2	121.5	142
1918	110.2	120.5	111.6	129.9	174
1919	112.6	126.3	115.0	133.0	199
1920	120.1	143.0	121.4	140.6	200
1921	142.3	167.4	144.2	167.7	174
1922	153.3	169.9	150.7	183.7	170
1923	155.0	179.2	150.3	189.3	173
1924	157.4	196.0	155.1	197.9	173
1925	163.6	207.0	156.8	202.2	178

*Monthly Labor Review, Vol. XXIV, No. 2, p. 168, February, 1927.

**The data on salaries are given for the academic year ending in June of the year indicated (see Tables S and T, Appendix) and on the cost of living, for the calendar year as indicated.

Table T, Appendix, contains the comparison between the head of a library department and the assistant professor in salary increase. The average salary of the department head increased from $1090 to $2269 in the interval beginning with 1910 and ending with 1925. For the same length of time the average salary of the assistant professor increased from $1740 to $2768.

INDEX NUMBERS OF SALARIES

Table 5, page 92, has been constructed from the data of Tables S and T (see both in Appendix), with index numbers for the cost of living for the period 1913 to 1925 added. The purpose of this table is to present more clearly the changes that have taken place in the salaries of librarians, heads of library departments, full professors, and assistant professors.

In compiling the data in Tables S and T the average annual salary of a full professor for each institution was calculated. An average was then determined for all of the institutions for each year. In Table 5 these averages were taken for the years 1910 to 1914, inclusive, and a third average computed. This final average was made the base, or 100, for computing the index for each of the years. The use of this method resulted in one institution's having the same weight as another regardless of the number of full professors reported by each. The same method was used in getting the index number for librarian except that it was simplified by the fact that there was only one librarian for each institution.

One institution was unable to furnish the information on salaries for the librarian and for professors for 1910, 1911, and 1912, another was unable to furnish it for professors for 1910, 1911, and 1912, and a third did not furnish it for professors for 1925. These institutions were, therefore, not included in computing averages for those years. The position of librarian was vacant at one institution during the years 1916-1922, inclusive. The salaries of the professors of the institutions for the years in which both positions are not given were omitted in computing averages. The number of professors included in computing the final average for 1910 was 192 and for 1925, 431. The number of librarians varied from nine in 1910 to ten in 1925. The salaries include amounts paid for the regular year and not the extra compensation paid for summer session or extension work. The

Fig. 9. RELATION BETWEEN THE INCREASE IN THE SALARIES OF FULL PROFESSORS AND LIBRARIANS AND THE COST OF LIVING.
(SEE TABLE 5)

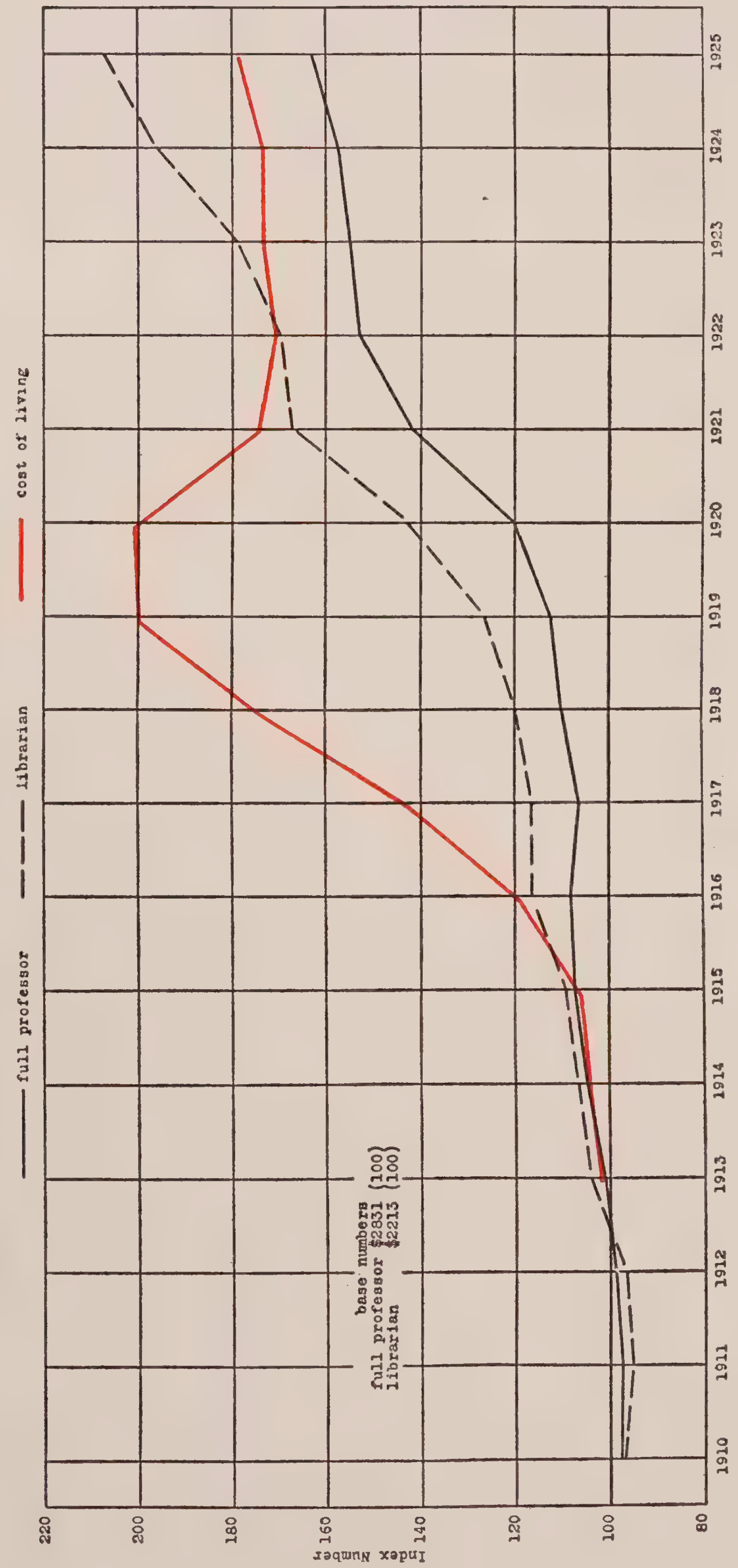
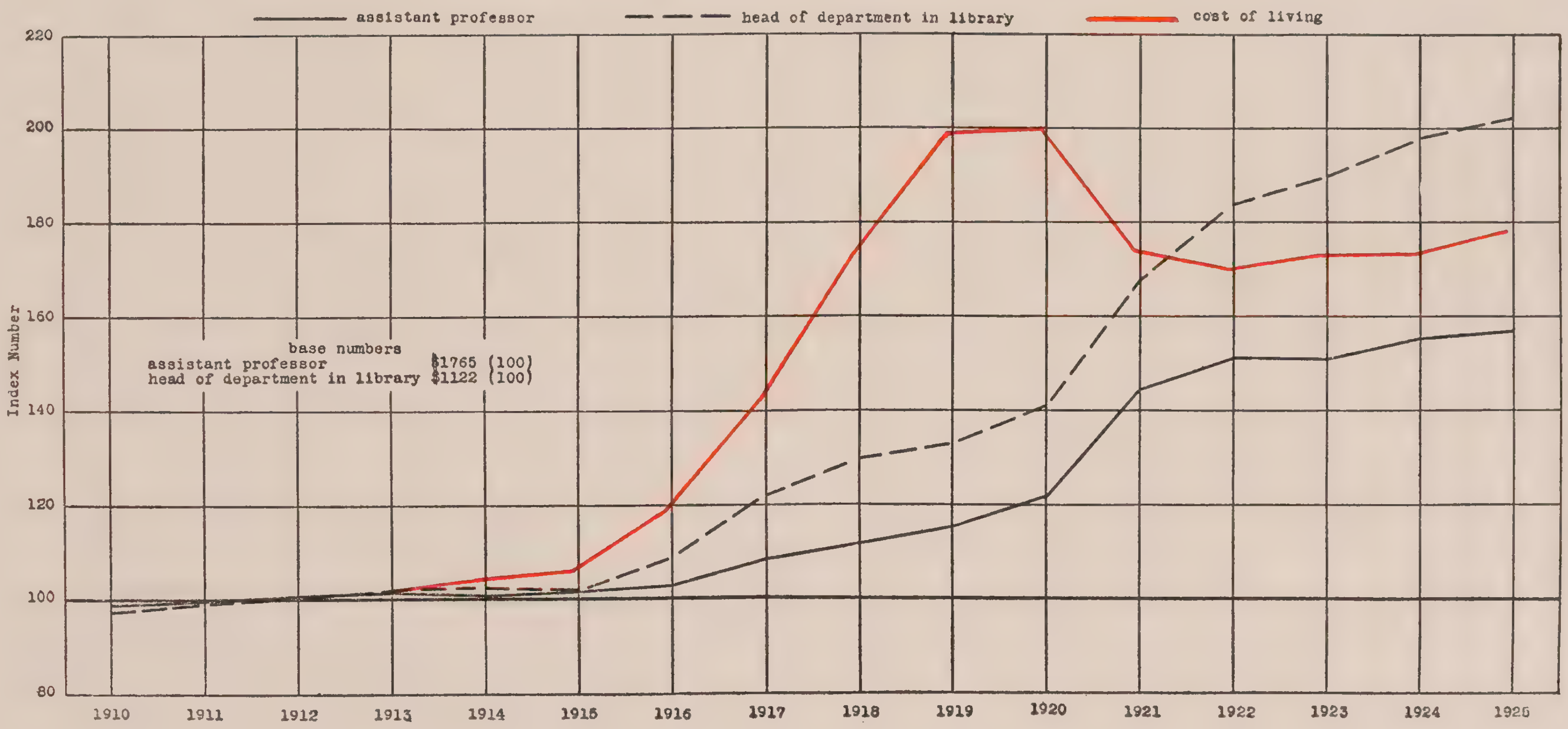


FIG. 10. RELATION BETWEEN THE INCREASE IN THE SALARIES OF ASSISTANT PROFESSORS AND HEADS OF DEPARTMENTS IN LIBRARIES AND THE COST OF LIVING. (SEE TABLE 5)



salary used is for the academic year ending in the given year, e.g., the salaries for 1925 are for the academic year ending in June, 1925.

In the computation of the index number for assistant professors and heads of library departments the same method was used as has been described for full professors and librarians, with one exception. Libraries having department heads had more than one and it was necessary to determine an average salary for department heads for each library.

The number of institutions included is not as great as in the case of the comparative salaries of professors and librarians. This is due to the fact that two of the libraries reporting salaries of librarians and faculty members were not organized with department heads and one did not have a departmental organization of the library staff until 1917. It was not possible to secure the salaries of heads of library departments at one institution until 1912 and at another until 1913.

An examination of the index numbers gives an idea of the relative rate of increase of the salaries of the groups compared. The increase in the case of the librarians has been very striking. From 1910 to 1925 the increase was 110.0 points. The 1925 salary of the librarian was 207.0 per cent of his average salary for the period from 1910 to 1914, inclusive. During the same period the increase for the full professor was only 66.0 points and his 1925 salary was only 163.6 per cent of his average salary for the 1910 to 1914 period. The rise for both full professor and librarian was gradual until about 1920 when it was considerably accelerated. The increase for the librarian becomes marked a little sooner than it does for the professor.

The index number for the salaries of the heads of the library departments and for assistant professors tell nearly the same story as in the case of librarians and full professors. The average salary for 1925 of heads of departments is 105.1 points greater than for 1910. The 1925 salary was 202.2 per cent of the base salary. In the case of the assistant professor the 1925 salary was 58.2 points higher than for 1910. His 1925 salary was only 156.8 per cent of his average salary for the period from 1910 to 1914, inclusive.

When the data on present salaries and the changes that have taken place during the period under consideration are considered, it is evident that for the group of institutions studied the salary situation for the library staff in the upper levels at least has been improving very much more rapidly than it has for members of the instructional staff. The present situation may not be satisfactory, but there is much encouragement in the marked improvement of the past fifteen years.

TABLE 6

HOURS OF SERVICE PER WEEK FOR LIBRARY STAFF MEMBERS

Institutions	ACADEMIC YEAR ENDING IN					
	1900	1905	1910	1915	1920	1925
Ames	44	44	44	44	44	44
California	..	..	38	38	38	38
Cincinnati	38	38	38	38	38	38
Columbia	39–48	39–42½	38½–39	38½–39	38½–39	38½–39
Cornell	42	42	42	42	42	42
Illinois			No data			
Iowa (Univ.)	..	40	40	40	40	40
Michigan	44	44	42	42	42	42
Minnesota	30	30	40½	40½	40	40
North Carolina	40	40	40	40	40	40
Oberlin	48	48	48	42	42	42
Oregon	..	..	40	40	40	40
Rutgers, Women	..	..	38½	38½	38½	38½
Rutgers, Men	..	..	44	44	44	44
Stanford	38½	38½	38½	38½	38½	38½
Tulane	42	42	42	42	42	42
Vassar	..	..	38½	38½	38½	38½
Yale	40½	40½	40½	40½	40½	40½

HOURS OF SERVICE PER WEEK

Table 6 shows the hours of service per week required of members of the library staff by five-year intervals from 1900 to 1925. There are but very few changes during that period. Columbia, Michigan, and Oberlin show slight decreases and Minnesota has had an increase. The last-named institution was in the earlier years distinctly below the requirements of other institutions.

The average amount of time that faculty members devote to their work undoubtedly comes up to this standard. A recent report for the four state-supported institutions of higher learning in Indiana shows that faculty members devote on the average between 50 and 55 hours per week to their institutional duties.[1]

Dr. Koos, as a result of a study of the teaching load in the University of Washington, arrived at the conclusion that the faculty members included in his study spent on the average about 8.5 hours per day on their university responsibilities.[2]

In interpreting these data it should be borne in mind that the faculty member has a greater degree of freedom with respect to the time and place for doing at least a portion of his work. In this respect the work of the library staff is somewhat more confining. Furthermore, librarians give a great deal of time to service on committees in some institutions. There are other activities that call for time outside the regular hours of service.

RETIREMENT PROVISION

The writer believes that the question of retirement allowances is an important factor in making for a more satisfactory status on the part of the professional staff of the library. The following institutions had no retirement allowances for either officers of instruction or members of the library staff: Ames, Cincinnati, Cornell, Iowa (Univ.), Minnesota, North Carolina, Oregon, and Rutgers. Columbia, Illinois, Oberlin, Stanford, Tulane, and Vassar have retirement allowances for both faculty and library staff. Three institutions, California, Michigan, and Yale, have retirement allowances for faculty but not for members of the library staff.

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[1] Report of a Survey of the State Institutions of Higher Learning in Indiana (Indianapolis: Board of Public Printing, 1926), p. 98.

[2] Leonard V. Koos. The Adjustment of the Teaching Load in a University, *U. S. Bureau of Education Bulletin,* 1919, No. 15, p. 20.

CHAPTER 6

Problems of Minor Importance

THE chapters bearing the titles "Growth and Financial Support," "Cooperation in the Development of Library Resources for Research," "College, School and Departmental Libraries," and "The Status of the Professional Staff" have dealt with what seemed to be the major administrative problems. It is possible that they are not for every institution included in this study the most important, but they are the ones that impressed the writer as being the most significant for the institutions as a group. There were other problems that were found to be more or less common to the libraries cooperating in this study. The purpose of this chapter is to make brief presentations of some of these.

TIME REQUIRED FOR BINDING

Faculty members frequently expressed themselves as being dissatisfied with the manner in which the binding of periodicals was handled. Some of their objections are shown by the following statements:

"It takes too long to get periodicals back from the bindery. The library could help somewhat if it did not send all the copies of a given number of the periodical to the bindery at the same time."

"Periodicals are held in the main library while missing numbers are supplied."

"There is no cooperation among the departmental libraries at the time of sending periodicals away for binding."

The length of time required for binding was a more or less frequent criticism on the part of faculty members. The binding problem is much more difficult now than it was a generation ago. Before the advent of the summer school, the summer quarter, or the summer session, the librarian usually took advantage of the period of relatively limited use of periodicals that came during the summer to get them bound. In the majority of the larger institutions there is no such period now.

In most of the libraries visited the rule either was to send the periodicals away for binding as soon as a volume was complete or when the next issue arrived after the completion of a volume. When a volume is completed it has to be collated before it is sent to the bindery. If portions of a periodical are missing or pages are mutilated a new number or numbers must be secured. While the mutilation of periodicals by students can hardly be characterized as being extensive, every librarian can give ample evidence to convince one that there is enough so that it is expensive in terms of time and energy of the library staff. Increased costs of paper and printing during recent years have resulted in publishers' reducing the number of extra copies to the minimum. This means that frequently the missing numbers have to be secured through dealers, and often as a result there is considerable delay incident to the preparation of the volume for the bindery.

In some libraries it was found to be customary to report periodicals in the bindery during the period of collation. In other libraries the periodicals were still available during the period when they were being collated but they were kept under the eye of an attendant. This method has the advantage of keeping the periodicals relatively accessible until they actually leave for the bindery. Some faculty members, in institutions in which it was the custom to remove periodicals from use while missing numbers were being supplied, found it difficult to understand why this should be. With this view the writer is inclined to agree. To keep the periodicals readily accessible during the period of preparation for binding does mean some additional burden for the library but it should be carried if at all practicable.

Faculty members sometimes expressed the view that none of the copies should be withdrawn from use until the missing numbers had been replaced. Librarians have found by experience, however, that this is likely to mean further difficulty due to loss of other copies or to further mutilation.

The rule found in some libraries by which periodicals are sent to the bindery when the volume is completed may be good, but observant library workers will discover that it is a rule that should have its exceptions. There are some members of the instructional staff who make much use of periodicals. Experience will soon show the librarian who those individuals are and the journals that they need. Inquiry may then be made regarding the probable need for the periodicals before they are sent to the bindery. This will not eliminate all complaint but it will tend to reduce it.

Several of the libraries studied either had a bindery or else there was one connected with the university press. This both faculty members and librarians thought was a great help in reducing the time required for binding. This may have been true as contrasted with previous conditions in the institutions. It will be shown later, however, that the presence of a bindery on the campus does not necessarily result in the periodicals' being in the bindery for only a short time. It should be relatively easy to see to it that when a bindery is controlled by the university, periodicals are sent to it only as rapidly as they can be bound. In cases where they are sent to the commercial bindery they are likely to be delayed due to the accumulation of work in the bindery. The presence of the bindery on the campus has an additional advantage in the fact that it is possible in an emergency to secure a periodical at almost any time.

In this connection it may be mentioned that the possibility of meeting an emergency is considered one of the chief advantages of having a bindery on the campus. There was general agreement that there was no financial saving to the university in owning its own bindery. However, it was the general opinion that better work was done than is usually turned out by the commercial bindery. The opinion of those whose experience should give weight to their views was to the effect that binding expenditures should amount to at least $5000 a year before it would be economical for an institution to install a bindery.

It seemed desirable to obtain some data regarding the length of time periodicals were out of service due to binding. In the institutions studied there were three ways in which the binding was being handled. In one institution the binding had to be done through a state bindery. In several instances binderies were owned by the institutions. In the remaining ones the binding was done by commercial binderies. Data were not obtained from as many institutions as was desired but they were secured from at least one of each type. Some means was used of obtaining a random selection. The method had to be varied according to the way in which the library kept its records. If the cards were filed alphabetically according to the titles, a specific number was selected under each letter of the alphabet. When they were filed by months, selections were made from each month with a relatively large proportion taken from January and July. At Ames, data

TABLE 7

DISTRIBUTIONS OF TIME REQUIRED TO BIND PERIODICAL LITERATURE

Days	INSTITUTIONS				
	Ames*	California	Minnesota	Oberlin	Syracuse
1–4	..	..	1	..	..
5	..	6	0	..	1
10	..	4	2	28	7
15	..	2	7	0	27
20	86	6	28	56	37
25	150	17	5	0	33
30	51	19	32	28	18
35	73	57	4	93	9
40	5	32	39	142	6
45	0	44	18	0	30
50	128	38	24	72	1
55	0	24	3	..	30
60	0	45	9	..	20
65	0	21	22	..	0
70	0	52	1	..	0
75	0	20	4	..	0
80	0	5	0	..	1
85	183	9	0	..	1
90	242	0	0	..	1
95	0	66	15	..	1
100	0	2	0	..	2
105	0	9	1	..	..
110	0	19	7	..	..
115	0	0	0	..	..
120	57	3	0	..	..
125	..	..	0	..	..
130	..	..	13	..	..
135	..	..	5	..	..
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	..
180	..	..	..	..	1
Total	975	500	240	419	226
Q_1	31	42	33	34	23
Median	55	60	46	40	32
Q_3	91	77	67	44	55

*377 volumes sent in January took from 23 to 53 days. 598 volumes sent in June took from 54 to 121 days.

were taken for all periodicals sent to the bindery during January and July. The data are shown in Table 7. California, with the median showing the longest time for binding, has a bindery on the campus. Syracuse and Oberlin, with relatively small medians, have their binding done by commercial concerns. The binding at Ames is done under a contract for all state binding. The median is slightly lower than for California but considerably higher than for the other institutions. At Minnesota the bindery is in the library and under the direction of the librarian. It should be noted that the third quartile for Ames is considerably higher than that for any other institution. This delay was caused by the unexpected closing of the bindery during July for alterations.

It would be comparatively easy for the librarians working cooperatively to obtain data from a considerable number of libraries in which the binding is done under a variety of conditions. An analysis could then be made for the purpose of locating the factors that cause delay. Undoubtedly some of these will be of such nature that they may be controlled by the library.

CLASSIFICATION

Classification presents a difficulty that is almost if not actually insuperable. The clientele of a library that has interests as diverse as those of the student body and faculty is not to be satisfied with a classification made by a library staff. Guy S. Ford has expressed his views on this subject in the following statement:

"A system of cataloguing that separates, on some antiquated classification, literature that should be massed together, sets of single purpose, and material of the same character, is more than an annoyance—it is an actual hindrance. To find Domesday Book next to the reports of the city comptroller of New York; works on institutional and constitutional history separated by two stories from the national history to which they belong; Bismarck's works next to John Adams because both are 'works of statesmen'; animal psychology next to the herd books of the Animal Husbandry Department—such blunders do more than disturb academic peace of mind."[1]

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[1] The Library and the Graduate School. *Journal of Proceedings and Addresses of the Fifteenth Annual Conference of the Association of American Universities* (1913), p. 42-43.

Library workers frequently call on members of the teaching staff for assistance in classification, but this is not a complete solution of the problem. The faculty members do not always agree among themselves on classification. About the best that can be done is for the library staff to study the needs of those making most use of the library and then adjust the classification as far as is practicable to such needs. Classification is a process in the preparation of books for use that calls for more than merely following rules. It is another illustration of the need of a high quality of personnel.

TIME REQUIRED TO OBTAIN BOOKS

Interviews with faculty members revealed some complaint about the length of time required to obtain books when ordered through the library. As evidence of the library's inefficiency they would state that they could secure books much more quickly than the librarian. As a matter of fact they can usually secure books more promptly than a library does. This is due to the economies libraries do and should practice. Usually librarians place their orders with dealers. They do this because they get better discounts and save greatly on transportation costs over what they would by buying directly from publishers. In the larger university libraries a considerable proportion of the printed materials being bought is foreign. These the librarian usually secures through the dealer as the only practicable method in the majority of cases. The amount that a university librarian is able to save as a result of buying through dealers is very considerable. Most faculty members would have little complaint to make about the loss of time if they realized how much these savings add to the book resources of the library each year.

Through the kindness of Ernest C. Richardson, an example is available of the difficulty libraries sometimes meet in buying a relatively recent book:

"A certain book on Varazze on the Italian Riviera, published in 1907 at Savona, full of documents of exceptional interest for the economic history of the Thirteenth Century and essential for the biography of Jacobus de Varagine: (a) could not be bought by American dealers; (b) Roman dealers and Genoese dealers also failed; (c) a personal visit to Savona failed; (d) a copy was promised for ten times the published price, paid in advance.

but not delivered; (e) later a copy was located in the library of the Historical Society at Florence; (f) finally a special visit to Varazze for the purpose found two copies in the city archives, and borrowed one. Needed for use again later, the copy at Florence had disappeared. Nothing left but to visit Varazze again."[1]

The librarians in the group of institutions studied cited many cases in which they had spent years in endeavoring to locate books that were desired by faculty members. Most of the libraries have systems of checking occasionally on back orders, but instances were found in which, in the opinion of the writer, the systems could be improved upon.

In some state institutions the library is required to have orders for books clear through the university business office. In some instances this office checks the books as they are received. Both of these requirements mean that the library can not give as prompt service as the individual obtains who purchases directly.

The problem of keeping serials up to date and doing the necessary follow-up work on reports is important. Some libraries have worked out devices for handling them very satisfactorily and others have not met fully their responsibilities in these matters.

The libraries in this study almost without exception give the faculty member the privilege of marking an order "rush." When this is done the order department orders in the manner that will secure most prompt delivery, and when the book arrives the catalog department places it ahead of the routine orders. This statement regarding the order department's choosing the method that will secure the book most promptly will not be accepted by all faculty members. Some of them have had experiences to the contrary. An incident related by a faculty member is illustrative. He asked the library to secure an extra copy of a journal that had come out a few months previously. After making two or three calls for the journal and being informed that the library had been unable to secure a copy, he wrote the publisher for one. As a result he had the periodical within a few days. His suggestion for librarians was to "substitute common sense for routine." No doubt mistakes of this kind are made by libraries. They are evidence of the need for the type of personnel that can make the suggested substitution at the appropriate time.

It should be recognized that every rush order costs considerably more than the one that takes the regular course. This is due not alone to the extra cost of transportation but to the fact that the cataloging of rush orders upsets the routine to such an extent that the cost is increased. Two ways of dealing with this problem were found in use. In Minnesota transportation costs on such orders are added to the amount the department pays for the books. The library pays the transportation charges on routine orders. The much more common practice was for the head of the order department to study the characteristics of faculty members with reference to the frequency with which they marked their orders "rush." They have found in most instances that a relatively small proportion of the faculty members is responsible for a large share of the rush orders. Some of them always order "rush." When this habit has been found to be fixed in certain individuals their insistence on speed is not taken too seriously.

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[1] From an unpublished article.

When there is real need for prompt action, librarians do not hesitate to use special delivery, air mail, telegraph, telephone, or cable. Nor should they have to hesitate to do these things when they can be of genuine service to the faculty or student body by so doing.

LISTS FOR RESERVED READINGS

Faculty members could conserve the energies of the library staff to a considerable extent by sending in their lists of reserved readings several days in advance. Failure to notify the library results in withdrawal of some of the books for use by the students before the library knows that they are to be reserved. As a result the library staff has to withdraw them from general circulation. Adequate notice from faculty members would save this work. At best this cannot be done short of two or three days. The result is not only an additional drain on the resources of the library but students are deprived of the use of the books for several days.

The growth in numbers of undergraduates in recent years has greatly increased the complexity of this problem. Not all libraries have taken steps to meet the problem, but some have. In some institutions it was found to be the custom to send out to faculty members a request for their list of reserves in advance of the beginning of a new session. If the first request did not bring a response, a second and even a third request were sent. In other institutions, the list of reserves when once obtained was kept and the faculty members were then requested to make such modifications as they desired from time to time. A great deal of evidence was found to show that the capable assistant in the departmental library, or in the reserve reading room, found a variety of ways of meeting the student's needs without undue irritation of faculty members.

Students frequently mentioned the difficulty they experienced as a result of faculty members' failing to make proper arrangements for the reserved books in advance of making the assignments in them. Not infrequently they referred to the fact that instructors made assignments in references, the only copies of which were in the possession of the instructors.

CHANGES IN STAFF

One of the problems frequently mentioned by librarians was their difficulty in keeping a staff. Data were collected on certain aspects of this problem. Table U, Appendix, shows by years for each institution as far as the data were available, the number of full-time members on the staffs and the number who have left the service. A computation has been made of the percentage of the full-time staff that left service in the period from 1921 to 1925, inclusive. One of the striking features is the marked differences. The range is from 4.4 per cent at Cornell to 48.2 per cent at Ames. The large proportion of changes at Ames is due partly to the readjustments that have been in progress in that institution in recent years. An additional factor is the employment of graduate students and the wives of graduate students as untrained assistants. The percentage of change at Stanford, which has the second largest proportion, is 32.7. The use at the loan desk on a full time basis of graduate students is a factor in the situation at Stanford. It is evident that, with the proportion that have left the service of several libraries during recent years, the difficulties incident to breaking in new workers must have assumed considerable proportions. In considering this phase it should be borne in mind that the data given in Table U are only for those who have left the service. The new workers added as a result of the growth of the staffs are not included.

The data on the size of the staffs and the number who left the service were available for 11 of the institutions for the period from 1911 to 1925, inclusive. Data from two more institutions were available slightly later. These data have been combined in Table 8, below, and the percentage who have left the service computed by five-year periods. These figures indicate for the institutions included that both of the five-year periods from 1916 to 1925 show approximately a third more change due to staff members' leaving service than was true in the 1911 to 1915 period.

In March, 1927, a request was sent to the libraries for additional data showing periods of service for members of the pro-

TABLE 8

TOTAL NUMBER ON LIBRARY STAFFS IN THIRTEEN INSTITUTIONS* AND PERCENTAGES WHO HAVE LEFT SERVICE EACH YEAR FROM 1911 TO 1925.** (SUMMARY OF DATA IN TABLE U, APPENDIX)

Academic Year Ending in	Total Number on Staffs	Total Number Left Service	Percentage Left Service	Average Percentage Left Service by Five-Year Periods
1911	130	16	12.3	15.0
1912	137	19	13.9	
1913	164	33	20.1	
1914	169	21	12.4	
1915	208	34	16.3	
1916	213	32	15.0	20.2
1917	239	44	18.4	
1918	223	56	25.1	
1919	235	53	22.6	
1920	258	51	19.8	
1921	278	58	20.9	19.7
1922	305	49	16.1	
1923	311	62	19.9	
1924	340	75	22.1	
1925	376	73	19.4	

*California, Cincinnati, Cornell, Iowa (Univ.), Michigan, Minnesota, North Carolina, Oberlin, Oregon, Rutgers, Stanford, Vassar, and Yale.

**The data for Michigan are not given until 1915 and for Minnesota, not until 1913.

fessional staff that were then in these libraries. This additional information showed, for all full-time members of the professional staffs that were in the library at the time the blanks were filled out, the length of time they had been full-time workers in the libraries in which they were then working. Replies were obtained from fifteen libraries and the data are shown in Table V, Appendix. The median period of service appears to be relatively low for a group of professionally trained workers.

In collecting the data for Table V, a difficulty was met in getting librarians to distinguish between members of their staffs who should be considered professional and those who would be classified as clerical. In some cases the librarians reported the entire staff. This may be a partial explanation of the relatively low median.

ESTABLISHMENT OF NEW LINES OF WORK

Frequently the difficulties of the librarian in serving the needs of instruction and research are increased by failure to give him sufficient advance notice of changes in the program of instruction. New chairs of instruction and even new schools are established without warning the library sufficiently in advance so that even a modest amount of material may be collected to meet the new demand when it comes. In some departments of knowledge the necessary library resources can be secured only at the cost of much time and money. It should be an established policy, when new lines of work are to be offered, not only to give the library notice as far in advance as possible but in considering the financial outlay for the work to include the necessary increase in the budget of the library. Neither of these aspects of the library's difficulty in measuring up to the demands made on it has the attention to which it is entitled.

One librarian was found who had worked out a device by which he reduced to a minimum the difficulty of giving the new faculty member the service he expected from the library. As soon as an appointment has been decided upon he writes the appointee and tells him something of the library resources in his field of work. He invites him to come to the library the first time he is on the campus and to examine the library's resources in his line of work. As far as practicable the librarian then purchases such additional material as may be needed.

THE STATE UNIVERSITY OF IOWA EXPERIMENTS

Two experiments are in progress at Iowa (Univ.) that seem likely to influence materially the relation of the library to the work of instruction at least in that institution.

Classes have been organized in certain of the humanities so as to reduce materially the periods devoted to the usual lectures and class discussions. Study periods are substituted for the lectures that have been omitted. Under this plan, instead of having students in a subject such as freshman English meet in relatively small groups three or four times a week, they would meet in a large class once a week for a lecture. This lecture would be given by the most stimulating and inspiring lecturer in the department. During the other two or three periods the students would spend their time in study. This studying would be done at appointed times and in a room with an instructor at hand to assist the student when help is needed.

Walter A. Jessup, president of the State University of Iowa, holds the view that the laboratory sciences have outstripped the humanities in furnishing opportunity for students to do their work. He would materially reduce the number of lectures in the latter subjects and make provision for study periods under favorable conditions. These study periods would correspond to the usual laboratory periods of a science. The study rooms for the students in the humanities would be a part of the library building and studying would be done with instructors at hand to assist if help should be needed.

The second experiment has to do with furnishing undergraduate study halls. Two such study places were established outside the library in the fall of 1924. One of the rooms is equipped with individual study desks and the other has study tables. Drawer space is provided so that students may leave the materials for their work without danger of losing them. The rooms are open from 7:50 A.M. to 10 P.M. They are open to undergraduates, with preference given to freshmen. Their use is entirely voluntary, but if a student desires he may have a desk assigned to him for definite hours each day. He is also given drawer space.

In each study room there are some books for reserved readings, some books of general reference, and some for general reading. The rooms are under the supervision of full-time assistants. In addition there is a reference assistant.

The results have been so satisfactory that in the plans being drawn for a new library building provision is being made for a sufficient number of study rooms and desks to meet the needs of all students. The students in the humanities would then have the library as their place for laboratory work.

Seminar Rooms

The use of the term *seminar* varied greatly among the group of institutions included in this study. In one institution it was applied to the departmental libraries. In another it was applied to reading rooms located in the main library building which were designed for graduate students. Much more commonly it was applied to comparatively small rooms located in the main library building. In some of these there were more or less permanent collections of books and others were without such collections.

The practice with reference to the use of these rooms for classes varied. In some institutions they were not used for classes if there were more or less permanent collections of books in them, and in others no consideration was given to this aspect in deciding whether or not classes should meet in them.

Instances were found in which the seminar rooms had been assigned to departments and were held permanently by them for study and for classroom purposes. The regulation of admission to the seminar rooms was entirely in the hands of the instructional staff.

Experience seems to have demonstrated that it is desirable to have several seminar rooms in the library building. No effort should be made to make classrooms of those in which there are more or less permanent collections of books for study purposes, but it should be possible for the instructor to have such books in the seminar room at times of class meetings. The rooms should not be regarded as the property of an instructor or a department. The assignment of the rooms should be in the hands of the librarian and he should encourage their use to the maximum.

Experience has also demonstrated that in libraries in which there are a considerable number of seminars, used as a place for students to study, they should be arranged so that supervision is easy. The unsupervised seminar room makes more or less trouble for the librarian.

CHAPTER 7

Some Possible Economies

THE data of Chapter 2 show that the library of the modern university expends large sums annually for books, periodicals, and service. Those data reveal for most of the institutions included in this study that during the last twenty-five years there has been a very remarkable growth in these respects. It would not be surprising in view of this marked development if there were evidences of waste. For this reason this study could not be considered complete if no attention were given to economies that might possibly be effected.

Prefatory to the discussion of this matter it should be stated that the writer believes, on the basis of the data collected and the impressions gained in visiting the libraries, that it would be unwise to reduce the budgets of the libraries included in this study. This statement is based on the belief that such savings as can be effected should be available for the development of activities not now provided, for the strengthening of branches of service not now adequately supported, and for the strengthening of the personnel in accordance with the suggestions made in Chapter 5.

In most instances worth-while suggestions regarding economies that could be effected in any given library could be made only after a detailed consideration of conditions in that library. Such an examination as would be needed would require more time than the writer was able to give to each library. A competent library staff should be able to make studies of this character for their own library.

In spite of the suggested limitations, some general suggestions seem to be appropriate. The discussion in the chapter entitled "Cooperation in the Development of Library Resources for Research" has a financial aspect. In the opinion of the writer the main argument for the views there set forth is that of fostering research. However, there can be but little doubt that the elimination of the present highly competitive conditions in certain fields of knowledge in the book market would mean economy. This in all probability would not be an economy that would show immediately, but it would over a long period result in a financial saving of considerable proportions and would contribute as well to the advancement of research.

Many of the faculty members who were interviewed were of the opinion that the buying of duplicates is overdone. Some duplication is necessary with the present methods of instruction, but it is the distinct impression of the writer that in some of the libraries visited this has been overdone. In the discussion of reserved books (Chap. 6) it has been suggested that careful studies of the use of duplicates might result in a reduction in the number it would be necessary to purchase. As has been suggested in connection with other divisions of this study, there is need for objective evidence so that decisions will not have to be made so largely on the basis of opinion.

The cataloging of books is a relatively expensive process, and practically every library of more than 500,000 volumes reported that it was getting a decreasing proportion of its cards from the Library of Congress. This is due to the increased proportion of foreign books being bought by libraries. One who considers the amount of time that has to be spent on the classification of certain books, and the additional time spent in determining the cards that should be prepared for the catalog, cannot fail to be impressed with the view that there must be a great waste, in the aggregate, as a result of several libraries going through the same process on the same books. The most practicable suggestion for a reduction of this loss would seem to be to have the Library of Congress select a group of libraries whose cards they would print and make available to other institutions. However, the demand for the cards might be so limited as to make this suggestion impracticable. It should have consideration.

Frequently, heads of cataloging departments made reference to the delay they experienced in obtaining cards from the Library of Congress. Many times, instead of waiting for them, the libraries made their own cards. The service rendered by the Library of Congress is such a contribution and is so highly appreciated that it would be an extremely happy solution if Congress should provide an appropriation large enough to enable it to render this service with more promptness. It would be a real saving for the libraries of the country.

It is the judgment of the writer that in some institutions a greater measure of centralization of service would make it possible to reduce somewhat the duplication both of books and of periodical literature. This is true of those institutions in which the decentralization is very pronounced. There are also opportunities to effect some saving in the cost of cataloging, purchasing, etc., by a greater degree of centralization.

During the progress of this study, several instances were found in which one or more departments, schools, or colleges maintained cataloging departments in connection with their libraries and entirely independent of the cataloging department of the central library. Cataloging is an excellent illustration of a type of library work in which there is a distinct advantage in centralization. It makes for economy and a good quality of work to have all persons doing cataloging organized in one group so as to give the largest opportunity for differentiation and specialization.

If the activity analyses of library workers that are now in progress should reveal that well-trained and relatively highly paid members of the staff are spending a considerable proportion of their time in doing things that can be equally well, perhaps even better, done by persons of less training, a real saving could then be effected by a larger measure of differentiation in the work.

STUDY ROOMS OUTSIDE THE LIBRARY

The tendency to make the library architecturally one of the most beautiful buildings on the campus is pronounced. It has much to commend it and the writer is in sympathy with it. However, it has the disadvantage of making the cost of furnishing study space very expensive, and unless the student when doing his studying is actually using the resources of the library, its justification may fairly be questioned. A considerable part of the use of the library is by students who at the time they use it are not using the printed materials of the library. They are studying their texts or lecture notes, writing up lecture notes, and so on. These activities they could carry on in rooms outside the library in buildings of less expensive construction.

It was found that in the University of Minnesota the reading room of the old library had been fitted up with individual desks and thrown open to the students for study purposes. It accommodates approximately 150 students, and those in position to know stated that it was very extensively used by students. There was no supervision and no books were supplied. The conditions, on the several occasions when the writer had an opportunity to observe them, were very favorable for study. This is only one of several rooms provided for similar purposes.

The above suggestions are tentative. It seems improbable that any considerable saving can be effected by any of them except the first and possibly the last. Librarians can study the conditions in their own libraries with reference to some of them. If they find means of saving funds there are demands for service that need more adequate support than they receive at present. The most important problem for college and university libraries is not to find ways and means of effecting economy—although that is important—but rather to secure the funds necessary for discharging properly their constantly increasing responsibilities.

APPENDIX

DEFINITIONS OF A VOLUME

A volume is:

1. Any publication that is permanently bound, accessioned, and fully cataloged. If two or more items are included between two covers, they are counted as one volume.

Ames, Columbia, Illinois, Iowa (Univ.), Michigan, North Carolina, Rutgers, Tulane.

2. Any item that is temporarily or permanently bound. If two or more items are included between two covers, they are counted as one volume.

California, Oberlin, Oregon.

3. Any item of more than twenty pages.

Cincinnati.

4. Any publication that is recognized as a separate unit and given a separate accession number and cataloged. If two or more items are included between two covers, they are counted as one volume.

Minnesota, Stanford, Vassar.

5. Any publication, bound or unbound, with a special title-page, separately published, and cataloged.

6. Any monograph, bound or unbound, with a special title-page, separately shelved and cataloged.

Yale.

DEFINITIONS OF TOTAL EXPENDITURES, NOT INCLUDING CAPITAL OUTLAYS

1. Includes expenditures for experiment stations, salaries, and care of grounds. Does not include expenditures from the receipt from dormitories and athletics.

Ames.

2. Includes all maintenance expenditures, including fellowships, scholarships, research funds, and payments to beneficiaries of trust funds. Does not include expenditures for maintenance of dormitories.

California, Cincinnati, Tulane.

3. Includes all maintenance, including dormitory system.

Columbia, Vassar, Yale.

4. Does not include dormitory maintenance, books and salaries of the Law and Goldwin Smith libraries, or the salary expenditures of the library of the College of Architecture, or the salaries paid in the departmental libraries.

Cornell.

5. Does not include the operation of storerooms, printing plant, dormitories, hospital, Illinois union, and other service departments. Trust, endowment, and special funds are not included.

Illinois, Iowa (Univ.), Michigan, North Carolina, Rutgers.

DEFINITIONS OF A PERIODICAL

A periodical is:

1. A publication appearing at regular intervals and continuing for an indefinite period. There must be several issues a year. Newspapers and government publications (state, national, and foreign) are not included. Society publications that are not issued more than twice a year are not included.

Ames.

Stanford, Rutgers. The above definition would apply except the requirement that there must be several issues a year.

2. A publication appearing at regular intervals and continuing for an indefinite period. Dailies, weeklies, monthlies, and annuals, including proceedings and transactions of societies and government publications (except those of the United States), are included.

California, North Carolina.

Yale. The above definition would apply if all government publications were included.

3. A printed publication issued in parts, having serial numbers with no material limitation, such as books that may be issued in parts but have a definite end.

Cincinnati, Cornell, Michigan.

Vassar. The above definition would apply if newspapers and annuals were not included.

4. A publication issued regularly and appearing at least twice a year. Administrative reports issued two or more times a year are not included.

Illinois.

5. A publication issued regularly and appearing at least twice a year, excluding transactions and proceedings of societies, museums, etc., and university studies and bulletins.

Iowa (Univ.)

6. A serial published quarterly or more often, a certain number of publications which appear very irregularly, and a certain number of annuals which are, for one reason or another, most satisfactorily checked along with the periodicals.
Minnesota.

7. A publication issued more than once a year for which definite subscription has been made by the university.
Oregon.

8. Any publication appearing at fixed intervals with more than one day between issues.
Tulane.

Persons using the tables that follow should understand that they do not necessarily cover all of the library resources of the institutions.

The data as reported include all branches of the institution in the following instances: Cincinnati, Columbia, Ames, Iowa (University), Michigan, Minnesota, North Carolina, Oberlin, Rutgers, and Vassar.

Exceptions to complete data have been made as follows:

Cornell, the libraries of the colleges of medicine, agriculture, and veterinary medicine are not included. Illinois, college of medicine omitted; Oregon, medical college omitted; Stanford, Oregon, medical college omitted; Stanford, the Hoover War Library and the library of the college of medicine are not reported.

California—

The figures given apply only to the part of the University located in Berkeley except university expenditures and teaching salaries as they appear in tables D, E, and F. These items are for the entire University. The library data in these tables and in all others except P and Q are for the general library in Berkeley unless the figures relate to the number of volumes. The number of volumes is determined by the accessions made in the general library. The general library accessions all books for school, college and departmental libraries of that part of the University located in Berkeley, except the Bancroft Library, which maintains a separate list of accessions. Data for attendance and other university data except as indicated above in tables D, E, and F are for the part of the University that is in Berkeley only.

Tulane—

Table A does not include data for the schools of commerce, law, medicine, and the undergraduate college for women.

Total student body at Tulane, excluding summer school, was 2,605 in 1924-25, and total volumes in libraries 105,000.

Yale—

The University Library comprises all the books owned by the University, but most of the school and departmental libraries are administered by small staffs or part-time assistants, and the information in many of the tables does not apply to them. The figures in tables A, D, and E are for all the libraries of the University; in tables P and Q for the school and departmental libraries only; and in the remaining tables for the general or central library.

TABLE A SIZE OF STUDENT BODY (RESIDENT UNDERGRADUATE AND GRADUATE STUDENTS IN REGULAR YEAR, EXCLUDING SUMMER SCHOOL) AND VOLUMES (SEE DEFINITION OF A *Volume* FOR EACH INSTITUTION ON PAGE 117) IN LIBRARIES, 1900–1925

Academic Year Ending in	AMES				CALIFORNIA				CINCINNATI				COLUMBIA				CORNELL			
	Students		Volumes		Students		Volumes		Students		Volumes		Students		Volumes		Students		Volumes	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	620	100.0	14,000	100.0	2,001	100.0	80,224	100.0	1,245	100.0	24,181	100.0	3,923	100.0	295,000	100.0	2,020	100.0	225,022	100.0
1905	1,037	167.3	17,000	121.4	2,633	131.6	151,121	188.4	1,059	85.1	42,231	174.6	4,464	113.8	375,225	127.2	3,001	148.6	311,897	138.6
1910	1,417	228.5	23,000	164.3	3,378	168.8	198,231	247.1	1,252	100.6	61,462	254.2	5,322	135.7	489,014	165.8	4,044	200.2	383,696	170.5
1911	1,475	237.9	30,000	214.3	3,761	188.0	212,345	264.7	1,271	102.1	63,426	262.3	5,893	150.2	517,512	175.4	4,249	210.3	395,209	175.6
1912	1,557	251.1	32,000	228.6	4,135	206.6	238,506	297.3	1,300	104.4	66,528	275.1	6,081	155.0	541,040	183.4	4,490	222.3	409,700	182.1
1913	1,741	280.8	35,000	250.0	4,687	234.2	259,737	323.8	1,973	158.5	68,029	281.3	6,538	166.7	570,615	193.4	4,662	230.8	423,570	188.2
1914	2,083	336.0	40,000	285.7	5,382	269.0	282,072	351.6	2,041	163.9	71,428	295.4	6,941	176.9	604,270	204.8	4,888	242.0	439,517	195.3
1915	2,319	374.0	43,000	307.1	5,861	292.9	304,662	379.8	2,298	184.6	74,142	306.6	7,373	187.9	626,844	212.5	5,165	255.7	455,129	202.3
1916	2,511	405.0	48,000	342.9	6,286	314.1	332,884	414.9	2,635	211.6	77,526	320.6	7,834	199.7	659,876	223.7	5,472	270.9	474,278	210.8
1917	2,562	413.2	55,000	392.9	6,780	338.8	355,192	442.8	3,138	252.0	80,523	333.0	8,130	207.2	687,279	233.0	5,372	265.9	489,656	217.6
1918	2,091	337.3	55,000	392.9	6,011	300.4	374,269	466.5	3,165	254.2	83,839	346.7	7,126	181.6	711,416	241.2	3,902	193.2	557,931	247.9
1919	2,966	478.4	62,000	442.9	7,028	351.2	392,682	489.5	3,145	252.6	86,861	359.2	6,838	174.3	737,135	249.9	4,392	217.4	605,526	269.1
1920	3,147	507.6	80,000	571.4	9,917	495.6	413,824	515.8	3,435	275.9	88,025	364.0	9,204	234.6	761,448	258.1	5,454	270.0	630,637	280.3
1921	3,518	567.4	85,000	607.1	10,887	544.1	439,483	547.8	3,709	297.9	94,607	391.2	9,943	253.5	797,106	270.2	5,417	268.2	655,086	291.1
1922	3,789	611.1	91,500	653.6	10,703	534.9	472,687	589.2	4,082	327.9	99,566	411.8	11,188	285.2	833,089	282.4	5,471	270.8	671,352	298.3
1923	3,927	633.4	101,715	726.5	10,789	539.2	511,259	637.3	4,629	371.8	105,122	434.7	11,826	301.5	863,671	292.8	5,253	260.0	688,686	306.1
1924	3,901	629.2	112,824	805.9	10,596	529.5	544,449	678.7	4,759	382.2	110,367	456.4	13,190	336.2	893,147	302.8	5,344	264.6	710,585	315.8
1925	4,003	645.6	122,496	875.0	10,677	533.6	570,544	711.2	5,259	422.4	117,070	484.1	13,606	346.8	1,024,423	347.3	5,451	269.9	724,452	321.9

Academic Year Ending in	ILLINOIS				IOWA (Univ.)				MICHIGAN				MINNESOTA			
	Students		Volumes		Students		Volumes		Students		Volumes		Students		Volumes	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	.....	.....	......	.....	1,632*	100.0	41,167	100.0	3,303	100.0	145,460	100.0	.....	.....	....	100.0
1905	3,326	100.0	74,326	100.0	1,815*	111.2	64,584	156.9	3,832	116.0	194,692	133.8	.....	.....	....	.....
1910	4,471	134.4	157,836	212.4	.....	.....	98,844	240.1	4,755	144.0	270,998	186.3	3,675	100.0	133,000	100.0
1911	4,609	138.6	180,371	242.7	1,898	116.3	101,499	246.6	4,751	143.8	288,358	198.2	3,822	104.0	145,000	109.0
1912	4,810	144.6	209,529	281.9	1,912	117.2	106,220	258.0	4,930	149.3	305,684	210.1	3,822	104.0	160,000	120.3
1913	4,139	124.4	233,586	314.3	2,081	127.5	116,358	282.6	5,099	154.4	322,040	221.4	3,682	100.2	177,500	133.5
1914	5,113	153.7	262,926	353.7	2,449	150.1	125,031	303.7	5,520	167.1	337,417	232.0	3,809	103.6	185,000	139.1
1915	5,486	164.9	300,592	404.4	2,584	158.3	133,568	324.5	6,034	182.7	352,718	242.5	4,261	115.9	207,406	155.9
1916	5,796	174.3	330,895	445.2	2,909	178.2	141,684	344.2	6,284	190.3	368,238	253.2	5,180	141.0	230,842	173.6
1917	6,162	185.3	361,682	486.6	3,120	191.2	150,766	366.2	6,601	199.8	383,976	264.0	5,576	151.7	250,361	188.2
1918	5,087	152.9	387,992	522.0	2,772	169.9	160,778	390.6	5,932	179.6	400,830	275.6	4,972	135.3	266,000	200.0
1919	6,678	200.8	411,453	553.6	3,675	225.2	171,709	417.1	8,857	268.2	413,666	284.4	8,707	236.9	280,000	210.5
1920	8,549	257.0	434,370	584.4	4,297	263.3	185,554	450.7	8,560	259.2	432,394	297.3	8,514	231.7	300,000	225.6
1921	8,739	262.7	451,722	607.8	4,556	279.2	199,758	485.2	9,611	291.0	457,847	314.8	8,946	243.4	367,250	276.1
1922	9,538	286.8	480,595	646.6	4,915	301.2	213,513	518.7	9,803	296.8	497,913	342.3	9,675	263.3	380,000	285.7
1923	9,729	292.5	505,567	680.2	5,445	333.6	224,748	545.9	10,068	304.8	545,675	375.1	10,335	281.2	395,000	297.0
1924	9,906	297.8	531,641	715.3	5,564	340.9	244,112	593.0	10,506	318.1	570,806	392.4	10,684	290.7	425,000	319.5
1925	10,685	321.3	559,617	752.9	5,638	345.5	271,809	660.3	10,432	315.8	596,614	410.2	11,217	305.2	445,454	334.9

Academic Year Ending in	NORTH CAROLINA				OBERLIN				OREGON				RUTGERS			
	Students		Volumes		Students		Volumes**		Students		Volumes		Students		Volumes	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	497	100.0	32,000	100.0	417	100.0	44,705	100.0	200	100.0	8,675	100.0	184	100.0	43,180	100.0
1905	582	117.1	43,804	136.9	670	160.7	67,554	151.1	281	140.5	12,915	148.9	217	117.9	48,770	112.9
1910	821	165.2	57,340	179.2	982	235.5	112,321	251.2	619	309.5	31,550	363.7	419	227.7	61,560	142.6
1911	787	158.4	60,342	188.6	1,004	240.8	119,592	267.5	661	330.5	36,299	418.4	340	184.8	64,521	149.4
1912	796	160.2	65,027	203.2	998	239.3	125,691	281.2	669	334.5	41,226	475.2	380	206.5	66,991	155.1
1913	837	168.4	67,452	210.8	1,017	243.9	136,923	306.3	691	345.5	46,415	535.0	377	204.9	69,226	160.3
1914	886	178.3	71,295	222.8	1,029	246.8	144,485	323.2	732	366.0	51,578	594.6	420	228.3	76,480	177.1
1915	1,011	203.4	74,750	233.6	1,002	240.3	154,538	345.7	818	409.0	58,589	675.4	443	240.8	79,755	184.7
1916	1,059	213.1	77,205	241.3	1,029	246.8	164,628	368.3	877	438.5	67,969	783.5	484	263.0	84,783	196.3
1917	1,138	229.0	79,205	247.5	1,077	258.3	175,625	392.9	1,036	518.0	76,573	882.7	537	291.8	90,000	208.4
1918	855	172.0	83,151	259.8	972	233.1	185,985	416.0	961	480.5	84,881	978.5	523	284.2	93,700	217.0
1919	1,154	232.2	88,316	276.0	1,191	285.6	194,393	434.8	1,294	647.0	92,142	1062.2	588	319.6	97,200	225.1
1920	1,384	278.5	93,914	293.5	1,155	277.0	204,500	457.4	1,795	897.5	99,589	1148.0	632	343.5	100,320	232.3
1921	1,493	300.4	99,771	311.8	1,195	286.6	217,019	485.4	1,891	945.5	106,649	1229.4	708	384.8	110,000	254.7
1922	1,683	338.6	108,405	338.8	1,250	299.8	230,664	516.0	2,241	1120.5	122,845	1416.1	790	429.3	112,935	261.5
1923	1,944	391.1	120,757	377.4	1,262	302.6	240,972	539.0	2,400	1200.0	130,470	1504.0	824	447.8	115,960	268.6
1924	2,259	454.5	134,989	421.8	1,240	297.4	251,904	563.5	2,443	1221.5	140,823	1623.3	779	423.4	120,603	279.3
1925	2,434	489.7	147,422	460.7	1,324	317.5	260,930	583.7	2,757	1378.5	152,596	1759.0	788	428.3	125,453	290.5

Academic Year Ending in	STANFORD				TULANE†				VASSAR				YALE			
	Students		Volumes		Students		Volumes		Students		Volumes		Students		Volumes	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	1,331	100.0	51,651	100.0	...	.....	......	.....	656	100.0	35,455	100.0	2,517	100.0	658,000	100.0
1905	1,568	117.8	85,932	166.4	...	.....	......	.....	983	149.8	50,725	143.1	2,992	118.9	811,480	123.3
1910	1,744	131.0	143,881	278.6	...	.....	......	.....	1,040	158.5	68,800	194.0	3,312	131.6	852,450	129.6
1911	1,758	132.1	162,432	314.5	...	.....	......	.....	1,058	161.3	72,408	204.2	3,282	130.4	981,530	149.2
1912	1,774	133.3	174,379	337.6	...	.....	......	.....	1,055	160.8	76,487	215.7	3,229	128.3	1,083,029	164.6
1913	1,792	134.6	187,877	363.7	...	.....	......	.....	1,043	159.0	80,877	228.1	3,288	130.6	1,116,812	169.7
1914	1,906	143.2	201,806	390.7	388	100.0	33,916	100.0	1,073	163.6	84,451	238.2	3,268	129.8	1,154,358	175.4
1915	2,054	154.3	224,165	434.0	392	101.0	35,736	105.4	1,120	170.7	88,261	248.9	3,310	131.5	1,188,939	180.7
1916	2,199	165.2	234,547	454.1	440	113.4	37,562	110.8	1,125	171.5	93,087	262.5	3,267	129.8	1,249,006	189.8
1917	2,186	164.2	244,273	472.9	441	113.7	39,463	116.4	1,102	168.0	97,240	274.3	3,262	129.6	1,279,600	194.5
1918	1,718	129.1	253,695	491.2	379	97.7	41,126	121.3	1,125	171.5	101,804	287.1	2,006	79.7	1,316,350	200.1
1919	1,744	131.0	263,720	510.6	382	98.5	42,728	126.0	1,120	170.7	105,586	297.8	2,416	96.0	1,356,350	206.1
1920	2,264	170.1	271,685	526.0	560	144.3	45,623	134.5	1,106	168.6	110,649	312.1	3,128	124.3	1,383,355	210.2
1921	2,307	173.3	284,970	551.7	657	169.3	47,514	140.1	1,089	166.0	115,920	326.9	3,222	128.0	1,471,028	223.6
1922	2,545	191.2	294,996	571.1	739	190.5	49,136	144.9	1,143	174.2	123,358	347.9	3,455	137.3	1,514,717	230.2
1923	2,501	187.9	306,985	594.3	775	199.7	50,976	150.3	1,148	175.0	128,975	363.8	3,784	150.3	1,582,102	240.4
1924	2,719	204.3	320,182	619.9	785	202.3	53,382	157.4	1,146	174.7	134,954	380.6	3,957	157.2	1,644,516	249.9
1925	2,797	210.1	331,528	641.9	825	212.6	57,037	168.2	1,150	175.3	142,090	400.8	4,445	176.6	1,697,322	258.0

*Data for succeeding year.

**Does not include collection of sheet music in the Conservatory of Music.

†See note on page 128.

TABLE B

SIZE OF STUDENT BODY (RESIDENT UNDERGRADUATE AND GRADUATE STUDENTS IN REGULAR YEAR, EXCLUDING SUMMER SCHOOL) AND VOLUMES (SEE DEFINITION OF A *Volume* FOR EACH INSTITUTION ON PAGE 117) IN LIBRARIES, 1875–1895

Academic Year Ending in	AMES		CALIFORNIA		CINCINNATI		COLUMBIA		CORNELL		IOWA (Univ.)		MICHIGAN		MINNESOTA	
	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students‡	Volumes	Students	Volumes	Students	Volumes
1875	*	4,000	237	12,000	58	*	1,327	*	532	*	618	*	1,191	22,820	97	*
1880	211	4,500	*	14,000	110	*	1,532	48,000	463	41,522†	560	*	1,427	29,345	199	*
1885	252	5,986	250	31,275	69	*	1,463	80,000	575	54,379	502	18,893	1,295	56,349	171	*
1890	284	8,260	419	41,318	898	*	1,671	100,000	1,329	103,000	869	23,656	2,153	75,599	735	*
1895	494	10,000	1,336	*	892	*	1,601	215,000	1,689	160,000	1,307	*	2,773	98,707	1,559	*

Academic Year Ending in	NORTH CAROLINA		OBERLIN		OREGON		RUTGERS		STANFORD		TULANE		VASSAR		YALE	
	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes	Students	Volumes
1875	*	*	358	*	Opened 1878		188	*	*	*	*	*	384	*	1,031	*
1880	171	*	320	15,000	144	*	140	*	*	*	88	*	303	*	1,037	*
1885	229	20,000	426	*	149	2,000	104	9,500	*	*	84	*	275	*	1,076	
1890	198	25,000	581	22,154	183	3,000	175	24,600	Opened 1891		88	*	321	*	1,477	*
1895	372	26,000	371	30,543	287	6,000	208	31,680	1,100	23,608	189	*	485	22,254	2,495	*

*No data.
†Data for 1880–81.
‡Data for succeeding year used in each case.

TABLE C

NUMBER OF STUDENTS IN GRADUATE SCHOOLS (RESIDENT, IN REGULAR YEAR, EXCLUDING SUMMER SCHOOL) IN INSTITUTIONS HAVING 100 OR MORE IN 1925†

STUDENTS IN PROFESSIONAL SCHOOLS ARE NOT INCLUDED.

Academic Year Ending in	Ames	California	Cincinnati	Columbia	Cornell	Illinois	Iowa (Univ.)	Michigan	Minnesota	North Carolina	Oregon	Stanford	Yale	Five Institutions Having Less than 100 in 1900		Seven Institutions Having 100 or More in 1900, Except Columbia	
														Number	Per Cent	Number	Per Cent
1900 . . .	24	218	74	. . .	174	72	148**	111	178	26	10	114	304	206	100.0	1,247	100.0
1905 . . .	13	243	52	918	211	126	166**	138	142	34	6	99	355	231	112.1	1,354	108.6
1910 . . .	20	371	119	1,421	309	283	147**	183	150	27	7	157	462	456	221.4	1,779	142.7
1911 . . .	16	429	129	1,738	372	316	147	166	158	25	9	207	462	495	240.3	1,941	155.7
1912 . . .	22	487	118	1,844	383	316	166	219	159	26	13	216	392	495	240.3	2,022	162.1
1913 . . .	15	546	127	2,028	382	331	166	267	183	23	20	209	339	516	250.5	2,092	167.8
1914 . . .	26	581	174	2,241	383	321	169	298	165	42	9	264	340	572	277.7	2,200	176.4
1915 . . .	69	681	149	2,815	394	444	170	342	222	50	17	327	270	729	353.9	2,406	192.9
1916 . . .	103	884	144	2,319	482	477	206	357	335	36	16	342	270	776	376.7	2,876	230.6
1917 . . .	115	962	187	2,332	468	477	232	369	383	37	25	323	152	841	408.3	2,889	231.7
1918 . . .	103	812	131	1,928	278	375	207	265	327	25	12	249	112	646	313.6	2,250	180.4
1919 . . .	77	681	89	1,550	286	367	170	179	316	29	12	178	274	574	278.6	2,084	167.1
1920 . . .	123	963	162	2,420	407	383	209	340	557	40	47	236	308	755	366.5	3,020	242.2
1921 . . .	203	1,028	166	2,578	440	422	265	440	689	73	69	289	373	933	452.9	3,524	282.6
1922 . . .	399	1,017	157	3,017	614	556	359	574	801	65	158	342	375	1,335	648.1	4,082	327.3
1923 . . .	369	1,249	186	3,634	540	623	440	625	905	93	184	419	430	1,455	706.3	4,608	369.5
1924 . . .	332	1,401	210	4,177	544	676	493	709	947	108	158	486	435	1,484	720.4	5,015	402.2
1925 . . .	395	1,472	267	4,788	583	666	554	758	997	144	172	458	482	1,644	798.1	5,304	425.3
Per Cent Number in 1925 is of Number in 1900	1645.8	675.2	360.8	521.6*	335.1	925.0	374.3	682.9	560.1	553.8	1720.0	401.8	158.6	. . . . .	. . . . .	. . . . .	. . . . .

†Oberlin—Number of students in graduate school did not exceed 30 for a single year during this period.
Rutgers—Number of students in graduate school did not exceed 43 for a single year during this period.
Tulane—Number of students in graduate school did not exceed 86 for a single year during this period.
Vassar—No graduate school.

*Per cent Number in 1925 is of Number in 1905.

**Number for succeeding year used.

TABLE D

EXPENDITURES, NOT INCLUDING PERMANENT CAPITAL OUTLAYS
TOTAL UNIVERSITY AND TOTAL LIBRARY*

(SEE DEFINITION OF *Expenditures* FOR EACH INSTITUTION ON PAGE 117.)

Academic Year Ending in	AMES				CALIFORNIA				CINCINNATI				COLUMBIA			
	Total University		Total Library		Total University		Total Library		Total University		Total Library		Total University		Total Library	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	....	.....	....	.....	....	.....	....	.....	$117,327	100.0	$ 2,140	100.0	$1,076,005	100.0	$ 63,148	100.0
1901	....	.....	....	.....	....	.....	....	.....	149,826	127.7	4,032	188.4	1,115,178	103.6	62,920	99.6
1902	....	.....	....	.....	....	.....	....	.....	166,809	142.2	9,504	444.1	1,156,642	107.5	72,953	115.5
1903	....	.....	....	.....	....	.....	....	.....	158,062	134.7	7,613	355.7	1,184,736	110.1	69,675	110.3
1904	....	.....	....	.....	....	.....	....	.....	150,466	128.2	5,306	247.9	1,273,964	118.4	76,915	121.8
1905	....	.....	....	.....	....	.....	....	.....	150,458	128.2	5,842	273.0	1,332,081	123.8	68,983	109.2
1906	....	.....	....	.....	....	.....	....	.....	166,684	142.1	6,630	309.8	1,377,736	128.0	73,188	115.9
1907	....	.....	....	.....	....	.....	....	.....	214,311	182.7	8,962	418.8	1,441,335	134.0	66,608	105.5
1908	....	.....	....	.....	....	.....	....	.....	217,844	185.7	11,640	543.9	1,493,456	138.8	70,659	111.9
1909	....	.....	....	.....	....	.....	....	.....	243,680	207.7	8,378	391.5	1,727,753	160.6	69,478	110.0
1910	....	.....	....	.....	....	.....	....	.....	254,832	217.2	7,509	350.9	1,896,463	176.3	72,367	114.6
1911	$480,450	100.0	$ 12,660	100.0	....	.....	....	.....	256,033	218.2	7,594	354.9	2,140,937	199.0	79,675	126.2
1912	585,198	121.8	13,975	110.4	....	.....	....	.....	309,599	263.9	6,287	293.8	2,308,920	214.6	97,245	154.0
1913	766,810	159.6	13,590	107.3	....	.....	....	.....	315,553	269.0	8,722	407.6	2,507,307	233.0	112,559	178.2
1914	1,158,974	241.2	14,300	113.0	$1,992,617	100.0	$ 80,610	100.0	367,632	313.3	7,379	344.8	2,689,075	249.9	127,760	202.3
1915	1,300,454	270.7	15,545	122.8	2,268,377	113.8	79,229	98.3	384,847	328.0	9,338	436.4	2,865,657	266.3	101,078	160.1
1916	1,288,780	268.2	16,820	132.9	2,435,766	122.2	78,096	96.9	430,075	366.6	6,942	324.4	3,071,864	285.5	124,883	197.8
1917	1,521,921	316.8	25,670	202.8	2,680,190	134.5	82,763	102.7	484,273	412.8	11,731	548.2	3,145,362	292.3	128,068	202.8
1918	1,580,467	329.0	29,775	235.2	3,240,163	162.6	76,152	94.5	475,106	404.9	10,062	470.2	3,175,060	295.1	124,889	197.8
1919	1,762,722	366.9	32,985	260.5	3,829,284	192.2	82,491	102.3	634,432	540.7	12,033	562.3	3,272,598	304.1	124,250	196.8
1920	2,107,005	438.5	42,495	335.7	4,950,355	248.4	99,793	123.8	819,257	698.3	16,291	761.3	4,125,369	383.4	172,817	273.7
1921	2,494,017	519.1	46,810	369.7	5,743,837	288.3	125,414	155.6	952,140	811.5	19,658	918.6	4,943,976	459.5	223,116	353.3
1922	2,798,048	582.4	46,075	363.9	6,300,045	316.2	156,854	194.6	985,101	839.6	16,895	789.5	5,253,851	488.3	214,652	339.9
1923	3,004,111	625.3	68,820	543.6	7,335,113	368.1	172,842	214.4	1,035,366	882.5	21,687	1013.4	5,644,452	524.6	222,467	352.3
1924	3,148,790	655.4	70,860	559.7	6,699,555	336.2	177,441	220.1	1,196,810	1020.1	28,424	1328.2	6,092,768	566.2	234,116	370.7
1925	3,316,503	690.3	82,590	652.4	8,309,962	417.0	182,884	226.9	1,305,383	1112.6	34,153	1595.9	6,556,783	609.4	263,561	417.4

Academic Year Ending in	CORNELL				ILLINOIS				IOWA (Univ.)				MICHIGAN			
	Total University**		Total Library		Total University		Total Library		Total University		Total Library		Total University		Total Library	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	$566,933	100.0	$ 32,623	100.0	....	.....	....	.....	....	....	....	....	....	.....	....	.....
1901	553,545	97.6	34,390	105.4	....	.....	....	.....	$207,846	100.0	$ 9,130	100.0	....	.....	....	.....
1902	585,834	103.3	36,358	111.4	....	.....	....	.....	255,702	123.0	9,865	108.1	....	.....	....	.....
1903	618,889	109.2	35,655	109.3	....	.....	....	.....	251,595	121.0	10,793	118.2	....	.....	....	.....
1904	704,428	124.3	34,825	106.7	....	.....	....	.....	234,853	113.0	7,959	87.2	....	.....	....	.....
1905	709,629	125.2	34,421	105.5	....	.....	....	.....	270,525	130.2	11,825	129.5	....	.....	....	.....
1906	750,289	132.3	35,236	108.0	....	.....	....	.....	269,498	129.7	12,131	132.9	....	.....	....	.....
1907	813,615	143.5	39,263	120.4	....	.....	....	.....	311,154	149.7	9,187	100.6	....	.....	....	.....
1908	796,495	140.5	41,386	126.9	....	.....	....	.....	331,214	159.4	9,474	103.8	....	.....	....	.....
1909	861,828	152.0	43,486	133.3	....	.....	....	.....	342,062	164.6	9,724	106.5	....	.....	....	.....
1910	940,856	166.0	39,131	119.9	....	.....	....	.....	395,961	190.5	18,048	197.7	....	.....	....	.....
1911	1,000,196	176.4	39,910	122.3	....	.....	....	.....	402,967	193.9	20,786	227.7	....	.....	....	.....
1912	1,036,047	182.7	44,234	135.6	$1,566,173	100.0	$ 93,429	100.0	493,910	237.6	20,916	229.1	....	.....	....	.....
1913	1,040,136	183.5	43,922	134.6	1,607,708	102.7	89,084	95.3	505,439	243.2	26,204	287.0	....	.....	....	.....
1914	1,031,399	181.9	48,009	147.2	1,986,464	126.8	159,106	170.3	588,704	283.2	24,540	268.8	....	.....	....	.....
1915	1,121,218	197.8	42,594	130.6	2,102,812	134.3	116,139	124.3	639,169	307.5	23,359	255.8	....	.....	....	.....
1916	1,098,532	193.8	42,920	131.6	....	.....	....	.....	760,632	366.0	25,625	280.7	....	.....	....	.....
1917	1,205,633	212.7	43,845	134.4	2,545,745	162.5	139,022	148.8	831,073	399.9	26,464	289.9	$2,158,701	100.0	$ 73,472	100.0
1918	1,318,184	232.5	39,489	121.0	2,581,354	164.8	139,288	149.1	934,251	449.5	31,059	340.2	2,135,148	98.9	80,586	109.7
1919	1,609,057	283.8	47,043	144.2	2,739,122	174.9	117,811	126.1	1,008,348	485.1	37,755	413.5	2,635,360	122.1	92,245	125.6
1920	1,761,108	310.6	51,846	158.9	3,149,495	201.1	118,453	126.8	1,295,702	623.4	43,190	473.1	3,420,142	158.4	166,944	227.2
1921	1,741,829	307.2	67,372	206.5	3,513,765	224.4	160,420	171.7	1,656,539	797.0	50,393	551.9	4,350,318	201.5	196,733	267.8
1922	1,968,732	347.3	67,258	206.2	4,173,088	266.5	179,464	192.1	1,916,987	922.3	57,252	627.1	4,612,616	213.7	215,239	293.0
1923	1,933,710	341.1	59,359	182.0	4,306,761	275.0	194,411	208.1	2,016,917	970.4	56,345	617.1	5,084,391	235.5	226,468	308.2
1924	2,083,001	367.4	59,059	181.0	4,593,657	293.3	207,857	222.5	2,319,414	1115.9	111,139	1217.3	5,793,540	268.4	249,946	340.2
1925	2,214,127	390.5	63,167	193.6	4,814,001	307.4	215,390	230.5	2,472,477	1189.6	150,490	1648.3	6,438,957	298.3	281,200	382.7

*No data are given for Minnesota, Oregon, and Stanford.
**Endowed colleges at Ithaca only.

For other institutions see Table D *continued*.

Table D—*Continued*

Expenditures, Not Including Permanent Capital Outlays. Total University and Total Library

(See Definition of *Expenditures* for Each Institution on Page 117.)

Academic Year Ending in	NORTH CAROLINA				OBERLIN				RUTGERS			
	Total University		Total Library		Total University		Total Library		Total University		Total Library	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	......	.....	.....	.....	$ 100,675	100.0	$ 5,315	100.0	....	.....	.....	.....
1901	......	.....	.....	.....	96,382	95.7	5,564	104.7	....	.....	.....	.....
1902	$ 77,840	100.0	$ 2,912	100.0	102,091	101.4	6,247	117.5	....	.....	.....	.....
1903	87,838	112.8	3,948	135.6	114,435	113.7	7,484	140.8	....	.....	.....	.....
1904	90,778	116.6	3,879	133.2	123,217	122.4	8,494	159.8	....	.....	.....	.....
1905	97,893	125.8	4,235	145.4	121,394	120.6	7,900	148.6	....	.....	.....	.....
1906	......	.....	4,702	161.5	147,200	146.2	10,761	202.5	....	.....	.....	.....
1907	56,140	72.1	4,678	160.6	150,934	149.9	14,715	276.9	....	.....	.....	.....
1908	121,911	156.6	10,719	368.1	251,000	249.3	21,154	398.0	....	.....	.....	.....
1909	141,772	182.1	7,513	258.0	256,000	254.3	21,848	411.1	....	.....	.....	.....
1910	150,024	192.7	11,424	392.3	275,000	273.2	21,231	399.5	....	.....	.....	.....
1911	149,983	192.7	10,634	365.2	314,000	311.9	25,116	472.5	....	.....	.....	.....
1912	150,042	192.8	9,512	326.6	314,000	311.9	25,116	472.5	....	.....	.....	.....
1913	164,565	211.4	10,058	345.4	320,000	317.9	25,587	481.4	....	.....	.....	.....
1914	168,783	216.8	10,973	376.8	323,360	321.2	25,590	481.5	....	.....	.....	.....
1915	203,023	260.8	10,204	350.4	349,896	347.6	26,671	501.8	$274,989	100.0	$ 8,552	100.0
1916	218,671	280.9	11,270	387.0	362,885	360.5	27,483	517.1	276,956	100.7	10,137	118.5
1917	225,506	289.7	11,538	396.2	376,261	373.7	29,311	551.5	384,989	140.0	11,193	130.9
1918	261,573	336.0	16,483	566.0	667,440	663.0	37,630	708.0	387,313	140.8	13,626	159.3
1919	307,110	394.5	27,153	932.5	767,990	762.8	35,382	665.7	379,255	137.9	10,160	118.8
1920	347,798	446.8	34,052	1169.4	915,488	909.3	44,346	834.4	493,639	179.5	15,657	183.1
1921	608,671	782.0	30,975	1063.7	745,882	740.9	48,449	911.6	590,451	214.7	16,992	198.7
1922	687,146	882.8	46,255	1588.4	748,413	743.4	47,899	901.2	658,665	239.5	22,139	258.9
1923	801,156	1029.2	56,591	1943.4	803,811	798.4	47,467	893.1	712,926	259.3	25,109	293.6
1924	1,010,749	1298.5	65,452	2247.7	832,360	826.8	51,604	970.9	734,386	267.1	25,709	300.6
1925	1,137,568	1461.4	68,976	2368.7	850,754	845.0	59,496	1119.4	782,106	284.4	26,940	315.0

Academic Year Ending in	TULANE				VASSAR				YALE			
	Total University		Total Library		Total University		Total Library		Total University		Total Library	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	$ 72,583	100.0	$ 600	100.0	....	.....	......	.....	$ 769,598	100.0	$ 30,858	100.0
1901	71,838	99.0	600	100.0	....	.....	......	.....	776,761	100.9	29,660	96.1
1902	73,458	101.2	700	116.7	....	.....	......	.....	796,883	103.5	31,451	101.9
1903	81,377	112.1	1,100	183.3	....	.....	......	.....	827,514	107.5	36,150	117.1
1904	83,758	115.4	1,150	191.7	....	.....	......	.....	874,546	113.6	35,195	114.1
1905	86,365	119.0	1,325	220.8	....	.....	......	.....	919,123	119.4	40,430	131.0
1906	86,847	119.7	1,250	208.3	....	.....	......	.....	980,446	127.4	44,617	144.6
1907	94,400	130.1	1,350	225.0	....	.....	......	.....	1,101,537	143.1	47,320	153.3
1908	94,915	130.8	1,350	225.0	....	.....	......	.....	1,163,608	151.2	71,018	230.1
1909	98,061	135.1	1,500	250.0	....	.....	......	.....	1,240,208	161.2	67,782	219.7
1910	100,578	138.6	3,338	556.3	....	.....	......	.....	1,171,165	152.2	72,904	236.3
1911	97,212	133.9	3,213	535.5	....	.....	......	.....	1,323,545	172.0	79,421	257.4
1912	88,184	121.5	2,773	462.2	....	.....	......	.....	1,387,331	180.3	84,634	274.3
1913	89,751	123.7	2,850	475.0	....	.....	......	.....	1,501,532	195.1	80,596	261.2
1914	88,547	122.0	2,876	479.3	....	.....	......	.....	1,585,493	206.0	89,616	290.4
1915	94,991	130.9	3,033	505.5	....	.....	......	.....	1,609,024	209.1	88,072	285.4
1916	96,983	133.6	3,576	596.0	$ 380,275	100.0	$ 20,939	100.0	1,676,891	217.9	92,551	299.9
1917	99,274	136.8	3,515	585.8	415,110	109.2	20,562	98.2	1,826,825	237.4	94,571	306.5
1918	103,339	142.4	3,529	588.2	460,753	121.2	19,782	94.5	1,846,143	239.9	91,034	295.0
1919	115,635	159.3	3,464	577.3	843,642	221.9	22,928	109.5	1,982,865	257.6	112,328	364.0
1920	123,380	170.0	4,944	824.0	996,111	261.9	25,093	119.8	2,667,518	346.6	121,312	393.1
1921	163,466	225.2	6,015	1002.5	1,147,277	301.7	31,312	149.5	3,098,549	402.6	147,669	478.5
1922	204,426	281.6	6,948	1158.0	977,726	257.1	34,030	162.5	3,634,797	472.3	162,315	526.0
1923	225,533	310.7	8,637	1439.5	1,109,702	291.8	34,923	166.8	3,728,486	484.5	164,026	531.6
1924	235,127	323.9	9,815	1635.8	1,248,341	328.3	38,159	182.2	4,032,240	523.9	199,469	646.4
1925	255,328	351.8	12,196	2032.7	1,283,732	337.6	42,700	203.9	4,348,564	565.0	214,683	695.7

TABLE E

EXPENDITURES FOR TEACHING SALARIES AND TOTAL LIBRARY EXPENDITURES, NOT INCLUDING PERMANENT CAPITAL OUTLAYS*

(The number in italics is the actual amount expended for the year indicated. The numbers that follow are percentages of the number in italics.)

Academic Year Ending in	AMES		CALIFORNIA		CINCINNATI		CORNELL		ILLINOIS		IOWA (Univ.)	
	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching** Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library
1900	....	....	....	....	*$41,579*	*$2,140*	....	....	....	....	....	....
1901	....	....	....	....	101.3	188.4	....	....	....	....	*$112,482*	*$9,130*
1902	....	....	....	....	120.6	444.1	....	....	....	....	118.7	108.1
1903	....	....	....	....	139.0	355.7	....	....	....	....	128.3	118.2
1904	....	....	....	....	154.3	247.9	....	....	....	....	128.3	87.2
1905	....	....	....	....	159.8	273.0	....	....	....	....	136.5	129.5
1906	....	....	....	....	170.5	309.8	....	....	....	....	140.1	132.9
1907	....	....	....	....	210.0	418.8	....	....	....	....	157.3	100.6
1908	....	....	....	....	245.7	543.9	....	....	....	....	173.3	103.8
1909	....	....	....	....	269.2	391.5	....	....	....	....	178.3	106.5
1910	....	....	....	....	306.4	350.9	*$476,471*	*$39,131*	....	....	207.3	197.7
1911	*$185,189*	*$12,660*	....	....	317.4	354.9	106.1	102.0	....	....	210.9	227.7
1912	121.4	110.4	....	....	348.3	293.8	106.1	113.0	....	....	265.3	229.1
1913	132.2	107.3	....	....	391.8	407.6	111.3	112.2	....	....	269.7	287.0
1914	176.2	113.0	*$740,216*	*$80,610*	407.1	344.8	112.2	122.7	*$890,714*	*$159,106*	317.7	268.8
1915	204.7	122.8	117.9	98.3	475.6	436.4	114.2	108.8	105.0	73.0	263.8	255.8
1916	234.5	132.9	131.6	96.9	512.8	324.4	118.9	109.7	118.1	....	410.7	280.7
1917	254.5	202.8	173.8	102.7	534.4	548.2	124.4	112.0	.....	87.4	438.3	289.9
1918	252.4	235.2	150.4	94.5	548.3	470.2	97.9	100.9	.....	87.5	461.7	340.2
1919	246.6	260.5	163.1	102.3	719.3	562.3	102.3	120.2	.....	74.0	482.5	413.5
1920	341.5	335.7	184.9	123.8	864.7	761.3	153.9	132.5	146.5	74.4	624.3	473.1
1921	489.2	369.7	275.9	155.6	994.4	918.6	185.8	172.2	161.9	100.8	871.7	551.9
1922	614.8	363.9	297.1	194.6	1,052.0	789.5	203.3	171.9	211.8	112.8	1,005.8	627.1
1923	607.0	543.6	325.6	214.4	1,146.4	1,013.4	204.4	151.7	226.3	122.2	1,052.6	617.1
1924	676.7	559.7	384.1	220.1	1,331.8	1,328.2	213.6	150.9	238.1	130.6	1,125.5	1,217.3
1925	714.9	652.4	411.7	226.9	1,752.0	1,595.9	218.9	161.4	256.3	135.4	1,257.8	1,648.3

Academic Year Ending in	MICHIGAN		NORTH CAROLINA		RUTGERS		TULANE		VASSAR		YALE	
	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library	Teaching Salaries	Total Library
1900	....	....	....	....	....	....	*$42,745*	*$600*	....	....	*$361,395*	*$30,858*
1901	....	....	....	....	....	....	99.8	100.0	....	....	106.6	96.1
1902	....	....	....	....	....	....	114.3	116.7	....	....	112.1	101.9
1903	....	....	....	....	....	....	115.4	183.3	....	....	115.3	117.1
1904	....	....	*$58,546*	*$3,879*	....	....	122.5	191.7	....	....	117.3	114.1
1905	....	....	107.2	109.2	....	....	124.0	220.8	....	....	125.4	131.0
1906	....	....	95.7	121.2	....	....	131.2	208.3	....	....	126.4	144.6
1907	....	....	....	120.6	....	....	133.3	225.0	....	....	145.2	153.3
1908	....	....	....	276.3	....	....	135.7	225.0	....	....	158.4	230.1
1909	....	....	135.2	193.7	....	....	131.4	250.0	....	....	165.1	219.7
1910	....	....	140.2	294.5	....	....	127.8	556.3	....	....	152.6	236.3
1911	....	....	148.5	274.1	....	....	129.3	535.5	....	....	174.7	257.4
1912	....	....	166.7	245.2	....	....	115.4	462.2	....	....	182.1	274.3
1913	....	....	163.4	259.3	....	....	118.3	475.0	....	....	192.3	261.2
1914	....	....	186.0	282.9	....	....	128.3	479.3	....	....	198.7	290.4
1915	....	....	200.1	263.1	*$117,867*	*$8,552*	133.5	505.5	....	....	203.9	285.4
1916	....	....	204.4	290.5	115.4	118.5	128.5	596.0	*$169,675*	*$20,939*	209.9	299.9
1917	*$946,703*	*$73,472*	203.1	297.4	118.5	130.9	128.3	585.8	106.9	98.2	227.0	306.5
1918	93.4	109.7	209.3	424.9	119.1	159.3	128.0	588.2	108.8	94.5	201.3	295.0
1919	96.1	125.6	242.0	700.0	126.3	118.8	127.1	577.3	109.5	109.5	193.1	364.0
1920	141.2	227.2	367.2	877.9	157.8	183.1	127.0	824.0	119.7	119.8	305.6	393.1
1921	180.3	267.8	584.2	798.5	186.9	198.7	225.2	1,002.5	144.3	149.5	347.7	478.5
1922	206.4	293.0	723.6	1,192.4	207.6	258.9	301.9	1,158.0	154.3	162.5	362.2	526.0
1923	214.4	308.2	748.2	1,458.9	232.1	293.6	345.7	1,439.5	158.8	166.8	387.3	531.6
1924	223.0	340.2	849.8	1,687.3	248.5	300.6	356.6	1,635.8	183.1	182.2	410.3	646.4
1925	235.1	382.7	1,037.9	1,778.2	260.3	315.0	359.7	2,032.7	200.2	203.9	451.4	695.7

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*No data are given for Columbia, Minnesota, Oberlin, Oregon, and Stanford.

**Endowed colleges at Ithaca only.

TABLE F

EXPENDITURES FOR TEACHING SALARIES AND FOR LIBRARY STAFF SALARIES*

Academic Year Ending in	AMES				CALIFORNIA				CINCINNATI				CORNELL			
	Teaching		Library Staff**		Teaching		Library Staff**		Teaching		Library Staff**		Teaching**		Library Staff**	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	......	.....	......	.....	......	.....	......	.....	$ 41,579	100.0	$ 1,658	100.0	......	.....	......	.....
1901	......	.....	......	.....	......	.....	......	.....	42,103	101.3	1,840	111.0	......	.....	......	.....
1902	......	.....	......	.....	......	.....	......	.....	50,127	120.6	5,728	345.5	......	.....	......	.....
1903	......	.....	......	.....	......	.....	......	.....	57,807	139.0	5,296	319.4	......	.....	......	.....
1904	......	.....	......	.....	......	.....	......	.....	64,170	154.3	4,654	280.7	......	.....	......	.....
1905	......	.....	......	.....	......	.....	......	.....	66,455	159.8	3,849	232.1	......	.....	......	.....
1906	......	.....	......	.....	......	.....	......	.....	70,894	170.5	3,869	233.4	......	.....	......	.....
1907	......	.....	......	.....	......	.....	......	.....	87,311	210.0	4,952	298.7	......	.....	......	.....
1908	......	.....	......	.....	......	.....	......	.....	102,162	245.7	4,794	289.1	......	.....	......	.....
1909	......	.....	......	.....	......	.....	......	.....	111,918	269.2	4,642	280.0	......	.....	......	.....
1910	......	.....	......	.....	......	.....	......	.....	127,381	306.4	4,089	246.6	$ 476,471	100.0	$ 20,252	100.0
1911	$ 185,189	100.0	$ 7,141	100.0	......	.....	......	.....	131,969	317.4	3,956	238.6	505,501	106.1	20,860	103.0
1912	224,841	121.4	9,135	127.9	......	.....	......	.....	144,833	348.3	3,380	203.9	505,513	106.1	21,630	106.8
1913	244,808	132.2	7,215	101.0	......	.....	......	.....	162,918	391.8	4,319	260.5	530,295	111.3	22,240	109.8
1914	326,249	176.2	8,915	124.8	$ 740,216	100.0	$ 42,123	100.0	169,260	407.1	4,038	243.5	534,814	112.2	23,905	118.0
1915	379,172	204.7	9,126	127.8	872,554	117.9	45,102	107.1	197,745	475.6	4,219	254.5	543,921	114.2	22,850	112.8
1916	434,352	234.5	11,410	159.8	973,839	131.6	44,393	105.4	213,207	512.8	6,043	364.5	566,323	118.9	23,480	115.9
1917	471,344	254.5	13,210	185.0	1,286,490	173.8	47,264	112.2	222,214	534.4	5,726	345.4	592,682	124.4	23,572	116.4
1918	467,482	252.4	15,538	217.6	1,113,490	150.4	48,085	114.2	227,968	548.3	5,235	315.7	466,403	97.9	22,830	112.7
1919	456,608	246.6	17,140	240.0	1,207,240	163.1	51,608	122.5	299,068	719.3	6,040	364.3	487,476	102.3	23,070	113.9
1920	632,482	341.5	21,406	299.8	1,368,965	184.9	58,191	138.1	359,537	864.7	8,006	482.9	733,519	153.9	23,725	117.1
1921	905,970	489.2	24,520	343.4	2,042,110	275.9	74,148	176.0	413,450	994.4	10,338	623.5	885,069	185.8	24,400	120.5
1922	1,138,487	614.8	26,491	371.0	2,198,998	297.1	84,498	200.6	437,401	1052.0	9,970	601.3	968,511	203.3	27,200	134.3
1923	1,124,132	607.0	31,235	437.4	2,410,250	325.6	101,624	241.3	476,676	1146.4	13,694	825.9	973,868	204.4	29,770	147.0
1924	1,253,097	676.7	33,035	462.6	2,842,858	384.1	111,022	263.6	553,763	1331.8	17,533	1057.5	1,017,916	213.6	30,400	150.1
1925	1,323,851	714.9	44,316	620.6	3,047,660	411.7	119,408	283.5	728,484	1752.0	25,170	1518.1	1,043,169	218.9	32,950	162.7

Academic Year Ending in	ILLINOIS				IOWA (Univ.)				MICHIGAN				NORTH CAROLINA			
	Teaching		Library Staff**		Teaching		Library Staff†‡		Teaching		Library Staff**		Teaching		Library Staff**	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	......	.....	......	.....	......	.....	......	.....	......	.....	......	.....	......	.....	......	.....
1901	......	.....	......	.....	$ 112,482	100.0	$ 2,450	100.0	......	.....	......	.....	......	.....	......	.....
1902	......	.....	......	.....	133,497	118.7	2,945	120.2	......	.....	......	.....	......	.....	......	.....
1903	......	.....	......	.....	144,347	128.3	3,795	154.9	......	.....	......	.....	......	.....	......	.....
1904	......	.....	......	.....	144,262	128.3	3,110	126.9	......	.....	......	.....	$ 58,546	100.0	$ 1,154	100.0
1905	......	.....	......	.....	153,543	136.5	2,862	116.8	......	.....	......	.....	62,785	107.2	1,537	133.2
1906	......	.....	......	.....	157,548	140.1	3,332	136.0	......	.....	......	.....	56,026	95.7	1,753	151.9
1907	......	.....	......	.....	176,885	157.3	4,295	175.3	......	.....	......	.....	......	.....	1,501	130.1
1908	......	.....	......	.....	194,887	173.3	4,579	186.9	......	.....	......	.....	......	.....	2,446	212.0
1909	......	.....	......	.....	200,550	178.3	4,457	181.9	......	.....	......	.....	79,156	135.2	2,735	237.0
1910	......	.....	......	.....	233,204	207.3	5,513	225.0	......	.....	......	.....	82,083	140.2	2,775	240.5
1911	......	.....	......	.....	237,251	210.9	5,267	215.0	......	.....	......	.....	86,936	148.5	2,841	246.2
1912	......	.....	......	.....	298,422	265.3	7,790	318.0	......	.....	......	.....	97,600	166.7	2,931	254.0
1913	......	.....	......	.....	303,387	269.7	8,280	338.0	......	.....	......	.....	95,650	163.4	3,200	277.3
1914	$ 890,714	100.0	$ 49,196	100.0	357,355	317.7	7,123	290.7	......	.....	......	.....	108,910	186.0	3,845	333.2
1915	935,499	105.0	55,105	112.0	296,757	263.8	7,380	301.2	......	.....	......	.....	117,150	200.1	4,201	364.0
1916	1,052,030	118.1	61,094	124.2	462,011	410.7	8,613	351.6	......	.....	......	.....	119,650	204.4	4,565	395.6
1917	......	.....	69,569	141.4	493,009	438.3	9,221	376.4	$ 946,703	100.0	$ 37,824	100.0	118,900	203.1	4,583	397.1
1918	......	.....	67,528	137.3	519,308	461.7	9,625	392.9	884,188	93.4	44,070	116.5	122,550	209.3	7,182	622.4
1919	......	.....	59,049	120.0	542,725	482.5	10,075	411.2	910,116	96.1	48,437	128.1	141,680	242.0	7,979	691.4
1920	1,304,874	146.5	67,737	137.7	702,191	624.3	12,208	498.3	1,337,193	141.2	83,981	222.0	215,002	367.2	......	.....
1921	1,441,708	161.9	76,520	155.5	980,550	871.7	16,753	683.8	1,706,841	180.3	103,079	272.5	342,018	584.2	15,233	1320.0
1922	1,886,676	211.8	99,756	202.8	1,131,324	1005.8	18,523	756.0	1,953,946	206.4	117,496	310.6	423,651	723.6	18,844	1632.9
1923	2,015,638	226.3	103,281	209.9	1,183,956	1052.6	18,552	757.2	2,030,191	214.4	122,983	325.1	438,042	748.2	22,106	1915.6
1924	2,120,358	238.1	104,306	212.0	1,265,990	1125.5	28,634	1168.7	2,111,362	223.0	136,977	362.1	497,533	849.8	29,427	2550.0
1925	2,283,193	256.3	109,282	222.1	1,414,815	1257.8	50,608	2065.6	2,225,232	235.1	149,893	396.3	607,657	1037.9	32,909	2851.7

*No data are given for Columbia, Minnesota, Oberlin, and Oregon.
**Full-time and part-time workers.
***Endowed colleges at Ithaca only.
†Full-time workers only.
‡Does not include law library staff.

For other institutions see Table F *continued*.

TABLE F—*Continued*

EXPENDITURES FOR TEACHING SALARIES AND FOR LIBRARY STAFF SALARIES

Academic Year Ending in	RUTGERS				STANFORD				TULANE			
	Teaching		Library Staff**		Teaching		Library Staff**		Teaching		Library Staff**	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	....	.....	.....	.....	$ 205,392	100.0	$ 6,760	100.0	......	.....	.....	.....
1901	....	.....	.....	.....	213,796	104.1	8,200	121.3	......	.....	.....	.....
1902	....	.....	.....	.....	222,725	108.4	9,000	133.1	......	.....	.....	.....
1903	....	.....	.....	.....	233,505	113.7	7,994	118.3	......	.....	.....	.....
1904	....	.....	.....	.....	230,513	112.2	8,630	127.7	......	.....	.....	.....
1905	....	.....	.....	.....	244,893	119.2	8,955	132.5	......	.....	.....	.....
1906	....	.....	.....	.....	267,422	130.2	11,403	168.7	......	.....	.....	.....
1907	....	.....	.....	.....	....	.....	12,400	183.4	......	.....	.....	.....
1908	....	.....	.....	.....	338,522	164.8	19,830	293.3	......	.....	.....	.....
1909	....	.....	.....	.....	369,955	180.1	19,830	293.3	......	.....	.....	.....
1910	....	.....	.....	.....	394,923	192.3	20,681	305.9	$ 54,640	100.0	$ 1,740	100.0
1911	....	.....	.....	.....	398,373	194.0	19,560	289.3	55,265	101.1	1,740	100.0
1912	....	.....	.....	.....	418,676	203.8	19,600	289.9	49,325	90.3	1,740	100.0
1913	....	.....	.....	.....	405,595	197.5	22,635	334.8	50,550	92.5	1,790	102.9
1914	....	.....	.....	.....	424,052	206.5	22,204	328.5	54,860	100.4	1,790	102.9
1915	$ 117,867	100.0	$ 4,600	100.0	497,589	242.3	22,695	335.7	57,080	104.5	1,790	102.9
1916	136,023	115.4	.....	.....	527,514	256.8	25,011	370.0	54,930	100.5	1,790	102.9
1917	139,666	118.5	.....	.....	541,706	263.7	25,761	381.1	54,830	100.3	1,790	102.9
1918	140,427	119.1	.....	.....	....	.....	25,746	380.9	54,730	100.2	1,860	106.9
1919	148,851	126.3	.....	.....	559,046	272.2	27,671	409.3	54,330	99.4	2,160	124.1
1920	186,035	157.8	.....	.....	708,600	345.0	34,205	506.0	54,280	99.3	2,315	133.0
1921	220,304	186.9	8,765	190.5	854,060	415.8	39,519	584.6	96,250	176.2	3,245	186.5
1922	244,705	207.6	13,080	284.3	1,008,683	491.1	43,144	638.2	129,050	236.2	3,245	186.5
1923	273,568	232.1	16,300	354.3	1,043,045	507.8	45,028	666.1	147,750	270.4	3,480	200.0
1924	292,894	248.5	16,300	354.3	1,128,161	549.3	49,490	732.1	152,450	279.0	3,750	215.5
1925	306,810	260.3	18,250	396.7	1,198,815	583.7	50,804	751.5	153,750	281.4	5,360	308.0

Academic Year Ending in	VASSAR				YALE			
	Teaching		Library Staff†		Teaching		Library Staff**	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1900	....	.....	......	.....	$ 361,395	100.0	$ 13,043	100.0
1901	....	.....	......	.....	385,213	106.6	13,453	103.1
1902	....	.....	......	.....	404,986	112.1	14,075	107.9
1903	....	.....	......	.....	416,663	115.3	14,502	111.2
1904	....	.....	......	.....	424,012	117.3	15,773	120.9
1905	....	.....	......	.....	453,347	125.4	17,411	133.5
1906	....	.....	......	.....	456,913	126.4	21,074	161.6
1907	....	.....	......	.....	524,577	145.2	21,343	163.6
1908	....	.....	......	.....	572,360	158.4	30,876	236.7
1909	....	.....	......	.....	596,693	165.1	36,548	280.2
1910	....	.....	......	.....	551,629	152.6	35,335	270.9
1911	....	.....	......	.....	631,321	174.7	34,793	266.8
1912	....	.....	......	.....	658,025	182.1	36,810	282.2
1913	....	.....	......	.....	694,877	192.3	36,470	279.6
1914	....	.....	......	.....	718,229	198.7	38,171	292.7
1915	....	.....	......	.....	736,994	203.9	39,361	301.8
1916	$ 169,675	100.0	$ 11,371	100.0	758,517	209.9	43,880	336.4
1917	181,396	106.9	10,850	95.4	820,228	227.0	43,757	335.5
1918	184,529	108.8	11,751	103.3	727,668	201.3	45,049	345.4
1919	185,873	109.5	12,320	108.3	697,920	193.1	48,110	368.9
1920	203,155	119.7	12,420	109.2	1,104,419	305.6	60,737	465.7
1921	244,860	144.3	13,627	119.8	1,256,406	347.7	76,242	584.5
1922	261,792	154.3	15,380	135.3	1,308,832	362.2	78,059	598.5
1923	269,433	158.8	16,317	143.5	1,399,722	387.3	82,963	636.1
1924	310,725	183.1	17,711	155.8	1,482,855	410.3	90,346	692.7
1925	339,700	200.2	18,700	164.5	1,631,227	451.4	100,492	770.5

**Full-time and part-time workers.

†Full-time workers only.

TABLE G

TOTAL CIRCULATION. HOME USE AND USE IN LIBRARY

(The number in italics is the actual number of loans in the year indicated. The numbers that follow are percentages of the number in italics)

Academic Year Ending in	California	Cincinnati	Columbia	Illinois	Michigan	Minnesota	North Carolina	Oberlin (Home Use Only)	Oregon	Tulane	Vassar (Home Use Only)	Yale	
												General Library and Linonian and Brothers	Reserved Shelves
1900	.....	.....	.....	.....	No student home use until 1906	.....	*12,123*	*13,291*	.....	.....	.....	.....	.....
1901	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
1902	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
1903	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1905	.....	*20,992*	*231,610*	*46,115*	.....	.....	75.9	117.5	.....	.....	.....	.....	.....
1906	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*44,956*	.....
1907	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1908	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1909	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1910	*184,000*	106.7	138.6	250.4	*203,990*	*104,537*	109.3	471.2	.....	*5,646*	.....	85.9	.....
1911	.....	129.1	295.9	283.7	101.1	119.8	144.8	443.5	.....	99.9	.....	82.5	.....
1912	.....	154.0	369.5	254.2	104.6	139.1	149.7	465.2	.....	129.6	.....	83.9	.....
1913	.....	200.1	427.2	199.3	116.9	151.4	153.2	455.4	.....	137.8	.....	85.5	.....
1914	.....	181.3	479.5	245.6	114.2	154.5	190.6	456.0	.....	127.8	.....	82.9	.....
1915	.....	268.5	357.7	329.8	119.8	148.5	203.7	463.4	*68,458*	124.8	.....	88.0	*11,159*
1916	.....	343.5	510.0	388.4	120.3	161.4	274.8	475.4	135.6	137.4	.....	89.4	132.2
1917	.....	377.7	486.3	465.7	127.8	141.1	281.3	480.3	143.3	135.3	.....	87.2	227.6
1918	.....	224.6	502.4	388.2	112.4	210.5	214.9	457.8	103.9	136.3	.....	54.6	137.8
1919	231.5	125.3	494.7	316.9	97.4	128.9	217.2	480.9	186.5	138.2	.....	59.5	89.3
1920	343.0	169.6	460.4	395.8	160.7	280.5	318.0	497.1	199.3	195.8	.....	93.1	330.9
1921	393.3	245.5	466.1	415.2	183.5	354.0	395.9	553.8	270.8	242.0	.....	94.4	336.1
1922	432.6	246.6	494.9	459.3	226.3	315.2	517.5	565.0	377.0	247.7	*38,722*	102.5	515.0
1923	440.6	292.4	498.0	526.8	247.0	446.4	613.9	630.0	455.4	242.0	105.2	108.8	681.2
1924	483.6	389.5	519.9	578.9	256.3	415.2	824.2	649.6	538.5	269.6	130.4	127.8	540.2
1925	487.3	639.9	.....	643.2	233.5	421.5	1044.1	607.8	599.8	317.7	134.6	143.2	584.5

TABLE H

RELATIVE PROPORTION OF LIBRARY EXPENDITURES SPENT FOR BOOKS AND PERIODICALS AND FOR LIBRARY SERVICE†

Institutions	1901–1905		1906–1910		1911–1915		1916–1920		1921–1925		For Entire Time Shown	
	Books and Periodicals	Library Service	Books and Periodicals	Library Service	Books and Periodicals	Library Service	Books and Periodicals	Library Service	Books and Periodicals	Library Service	Books and Periodicals	Library Service
Ames	....	....	....	....	37.1	62.9	44.9	55.1	48.3	51.7	46.0	54.0
California	....	....	....	....	....	....	....	....	43.9	56.1	43.9	56.1
Cincinnati	21.5	78.5	43.3	56.7	45.3	54.7	42.3	57.7	34.1*	65.9	37.8	62.2
Columbia	44.4	55.6	40.0	60.0	39.0	61.0	39.0	61.0	36.6	63.4	38.8	61.2
Illinois	....	....	....	....	59.9*	40.1*	46.2*	53.8*	46.7	53.3	49.8	50.2
Iowa (Univ.)	68.5	31.5	59.4	40.6	66.9	33.1	66.9	33.1	65.2	34.8	65.6	34.4
Michigan***	....	....	51.4	48.6	49.9	50.1	43.4	56.6	41.9	58.1	44.3	55.7
North Carolina	59.3	40.7	63.6	36.4	61.1	38.9	59.0*	41.0*	48.9	51.1	53.4	46.6
Oberlin	38.3	61.7	42.6	57.4	33.7	66.3	24.9	75.1	21.7	78.3	28.0	72.0
Rutgers	....	....	....	....	....	....	....	....	27.1	72.9	27.1	72.9
Stanford	....	....	....	....	....	....	39.4	60.6	38.0	62.0	38.5	61.5
Tulane	....	....	....	....	38.2	61.8	46.2	53.8	49.9	50.1	46.6	53.4
Vassar	....	....	44.6**	55.4**	37.4	62.6	38.7	61.3	36.8	63.2	38.1	61.9
Yale	45.3	54.7	40.3	59.7	44.8	55.2	36.8	63.2	34.2	65.8	38.5	61.5

†No data are given for Cornell, Minnesota, and Oregon.

*For four years only.

**For three years only.

***1900–1916, budget appropriations; 1917–25, actual amounts spent.

TABLE I

NUMBER OF PERIODICALS† (SEE DEFINITION OF A *Periodical* FOR EACH INSTITUTION ON PAGE 118)

Academic Year Ending in	Ames*		California**		Cincinnati**		Cornell**		Illinois***		Iowa (Univ.)**		Michigan**		Minnesota*	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	200	100.0	.....	.....	...	.....	.....	.....	414	100.0	213	100.0	775	100.0	...	.....
1901	200	100.0	.....	.....	...	.....	.....	.....	589	142.3	344	161.5	818	105.5	...	.....
1902	225	112.5	.....	.....	351	100.0	.....	.....	644	155.6	374	175.6	867	111.9	...	.....
1903	225	112.5	.....	.....	351	100.0	.....	.....	728	175.8	581	272.8	739	95.4	...	.....
1904	225	112.5	.....	.....	351	100.0	.....	.....	843	203.6	497	233.3	780	100.6	...	.....
1905	225	112.5	.....	.....	393	112.0	.....	.....	1,031	249.0	448	210.3	1,148	148.1	...	.....
1906	225	112.5	.....	.....	395	112.5	.....	.....	1,112	268.6	364	170.9	1,259	162.5	321	100.0
1907	...	.....	.....	.....	395	112.5	.....	.....	1,224	295.7	513	240.8	1,278	164.9	460	143.3
1908	...	.....	.....	.....	395	112.5	.....	.....	1,272	307.2	514	241.3	1,469	189.5	560	174.5
1909	250	125.0	.....	.....	395	112.5	.....	.....	1,429	345.2	501	235.2	1,482	191.2	602	187.5
1910	...	.....	.....	.....	395	112.5	.....	.....	1,800	434.8	629	295.3	1,518	195.9	647	201.6
1911	...	.....	.....	.....	300	85.5	.....	.....	1,967	475.1	695	326.3	1,509	194.7	691	215.3
1912	...	.....	.....	.....	300	85.5	.....	.....	2,426	586.0	715	335.7	1,583	204.3	774	241.1
1913	300	150.0	7,000	100.0	300	85.5	.....	.....	2,848	687.9	758	355.9	1,614	208.3	845	263.2
1914	400	200.0	7,200	102.9	300	85.5	.....	.....	3,433	829.2	806	378.4	1,723	222.3	932	290.3
1915	400	200.0	7,300	104.3	300	85.5	.....	.....	4,579	1106.0	837	393.0	1,702	219.6	972	302.8
1916	400	200.0	7,400	105.7	300	85.5	2,334	100.0	5,130	1239.1	905	424.9	1,710	220.6	1,051	327.4
1917	800	400.0	8,110	115.9	300	85.5	2,350	100.7	5,421	1309.4	938	440.4	1,789	230.8	1,069	333.0
1918	...	.....	8,411	120.2	325	92.6	2,329	99.8	6,504	1571.0	629	295.3	1,884	243.1	1,187	369.8
1919	...	.....	8,605	122.9	355	101.1	2,443	104.7	6,970	1683.6	781	366.7	2,022	260.9	1,295	403.4
1920	1000	500.0	8,834	126.2	378	107.7	2,366	101.4	8,066	1948.3	935	439.0	2,253	290.7	1,384	431.2
1921	....	.....	8,984	128.3	406	115.7	2,285	97.9	8,359	2019.1	963	452.1	2,448	315.9	1,420	442.4
1922	1100	550.0	9,633	137.6	304	86.6	2,132	91.3	8,529	2060.1	1,006	472.3	2,817	363.5	1,493	465.1
1923	....	.....	10,012	143.0	588	167.5	2,260	96.8	9,132	2205.8	1,093	513.1	2,883	372.0	1,612	502.2
1924	1314	657.0	10,420	148.9	705	200.9	2,237	95.8	9,943	2401.7	1,154	541.8	2,757	355.7	1,683	524.3
1925	1414	707.0	11,179	159.7	1,063	302.8	2,288	98.0	.....	......	1,176	552.1	3,361	433.7	1,715	534.3

Academic Year Ending in	North Carolina****		Oberlin*		Oregon*		Rutgers**		Stanford**		Tulane*		Vassar*		Yale**	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1900	...	.....	..	.....	...	.....	...	.....	334	100.0	79	100.0	...	.....	.....	.....
1901	...	.....	..	.....	...	.....	...	.....	...	.....	79	100.0	...	.....	.....	.....
1902	...	.....	73	100.0	...	.....	...	.....	...	.....	97	122.8	...	.....	.....	.....
1903	...	.....	74	101.4	...	.....	...	.....	464	138.9	96	121.5	...	.....	.....	.....
1904	...	.....	80	109.6	...	.....	...	.....	484	144.9	98	124.1	...	.....	.....	.....
1905	...	.....	118	161.6	...	.....	...	.....	640	191.6	104	131.6	...	.....	.....	.....
1906	...	.....	139	190.4	...	.....	...	.....	640	191.6	101	127.8	...	.....	.....	.....
1907	200	100.0	153	209.6	...	.....	...	.....	749	224.3	108	136.7	...	.....	.....	.....
1908	390	195.0	183	250.7	...	.....	...	.....	796	238.3	112	141.8	...	.....	.....	.....
1909	404	202.0	233	319.2	158	100.0	...	.....	833	249.4	118	149.4	...	.....	.....	.....
1910	426	213.0	258	353.4	...	.....	...	.....	880	263.5	127	160.8	...	.....	.....	.....
1911	458	229.0	268	367.1	...	.....	...	.....	...	.....	128	162.0	...	.....	.....	.....
1912	643	321.5	278	380.8	...	.....	...	.....	968	289.8	133	168.4	...	.....	.....	.....
1913	659	329.5	284	389.0	...	.....	...	.....	1,016	304.2	138	174.7	...	.....	.....	.....
1914	677	338.5	297	406.8	...	.....	...	.....	1,049	314.1	154	194.9	...	.....	.....	.....
1915	689	344.5	306	419.2	...	.....	529	100.0	.....	.....	156	197.5	...	.....	.....	.....
1916	701	350.5	333	456.2	...	.....	543	102.6	1,093	327.2	161	203.8	...	.....	.....	.....
1917	...	.....	369	505.5	...	.....	549	103.8	1,118	334.7	163	206.3	...	.....	.....	.....
1918	...	.....	366	501.4	...	.....	544	102.8	.....	.....	170	215.2	...	.....	.....	.....
1919	854	427.0	370	506.8	...	.....	609	115.1	.....	.....	183	231.6	...	.....	.....	.....
1920	873	436.5	381	521.9	...	.....	603	114.0	1,190	356.3	176	222.8	...	.....	8,899	100.0
1921	873	436.5	407	557.5	...	.....	619	117.0	.....	.....	172	217.7	...	.....	8,887	99.9
1922	900	450.0	418	572.6	...	.....	640	121.0	.....	.....	180	227.8	...	.....	9,064	101.9
1923	1,181	590.5	440	602.7	...	.....	647	122.3	.....	.....	207	262.0	457	100.0	11,066	124.4
1924	1,500	750.0	449	615.1	...	.....	657	124.2	.....	.....	210	265.8	533	116.6	11,261	126.5
1925	1,700	850.0	451	617.8	778	492.4	665	125.7	1,255	375.7	228	288.6	542	118.6	11,548	129.8

†No data are given for Columbia.
*Purchased.
**Currently received (gifts and purchases).
***Number subscriptions currently received (two copies of same periodical counted as 2).
****Prior to 1923 some exchanges included; from this date on, all exchanges and newspapers are included.

TABLE J INCREASE IN COST OF PERIODICALS. DISTRIBUTIONS OF PERCENTAGES THAT COSTS IN 1925 ARE OF COSTS IN 1910*

Per Cent Cost in 1925 is of Cost in 1910	DOMESTIC PERIODICALS				ENGLISH PERIODICALS				CONTINENTAL PERIODICALS, Except Belgian, French, and Italian			
	COST IN 1910											
	Less than $3.00	$3.00 to $5.99	$6.00 to $10.99	$11.00 and more	Less than $3.00	$3.00 to $5.99	$6.00 to $10.99	$11.00 and more	Less than $3.00	$3.00 to $5.99	$6.00 to $10.99	$11.00 and more
40–49	..	..	..	..	..	..	..	..	..	1	..	..
50	1	..	..	..	1	..	..	..	..	1	..	..
60	0	..	1	..	0	..	1	..	..	3	..	..
70	0	..	0	..	0	..	1	..	1	2	..	..
80	0	1	0	..	0	1	0	..	1	1	1	1
90	0	0	0	..	0	0	0	..	0	0	0	0
100	18	24	5	..	9	20	5	2	7	12	4	1
110	6	8	0	..	0	2	4	1	1	7	1	3
120	4	17	2	1	2	5	2	0	4	10	3	2
130	9	12	3	0	2	6	3	2	5	12	2	3
140	4	1	0	0	1	6	1	0	4	5	5	2
150	12	5	0	0	3	5	2	0	1	4	2	3
160	4	8	2	1	1	8	3	0	5	3	4	2
170	3	1	0	..	2	4	0	0	1	5	3	0
180	6	0	0	..	2	2	2	0	1	3	1	2
190	3	1	0	..	2	6	2	0	3	7	1	3
200	11	4	2	..	3	4	2	0	2	2	3	0
210	3	1	1	..	0	3	2	0	7	3	2	0
220	0	1	0	..	1	2	1	0	1	3	1	0
230	1	0	0	..	1	0	0	0	1	2	0	1
240	1	3	0	..	0	1	0	1	7	0	3	1
250	7	0	0	..	1	0	1	..	5	0	1	0
260	2	0	0	..	0	0	0	..	2	0	0	1
270	3	0	0	..	0	0	0	..	1	4	0	1
280	1	0	0	..	1	0	0	..	0	0	1	0
290	1	0	0	..	2	0	0	..	1	2	0	0
300	4	3	0	..	1	0	1	..	1	3	0	1
310	0	0	0	..	1	1	1	..	3	1	0	0
320	0	0	0	..	0	..	..	..	4	2	0	0
330	2	2	0	..	0	..	..	..	0	0	0	0
340	0	0	0	..	0	..	..	..	0	1	0	1
350	0	0	0	..	0	..	..	..	0	0	1	0
360	0	0	0	..	1	..	..	..	1	1	0	0
370	0	0	0	..	0	..	..	..	0	1	0	1
380	1	0	0	..	2	..	..	..	0	0	0	0
390	1	0	0	..	0	..	..	..	0	1	0	0
400	0	0	1	..	1	..	..	..	0	1	0	1
410	0	0	..	..	..	..	..	..	0	..	1	1
420	0	0	..	..	..	..	..	..	0	..	..	0
430	0	0	..	..	..	..	..	..	1	..	..	1
440	0	0	..	..	..	..	..	..	..	..	..	0
450	0	0	..	..	..	..	..	..	..	..	..	0
460	0	0	..	..	..	..	..	..	..	..	..	0
470	0	0	..	..	..	..	..	..	..	..	..	1
480	0	0	..	..	..	..	..	..	..	..	..	0
490	0	0	..	..	..	..	..	..	..	..	..	0
500	1	1	..	..	..	..	..	..	..	..	..	1
/												
540	..	..	..	..	..	..	..	..	..	1	..	..
550	..	..	..	..	..	..	..	..	..	..	..	..
560	..	..	..	..	..	..	..	..	1	..	..	..
/												
720	..	..	..	..	..	..	..	..	1	..	..	..
/												
780	..	..	..	..	..	..	..	..	..	..	..	1
/												
840	..	..	1	..	..	..	..	..	..	..	..	..
/												
1440	..	..	..	..	..	..	..	..	1	..	..	..
/												
1970	..	..	..	..	..	..	..	..	1	..	..	..
/												
3040	..	..	..	..	..	..	..	..	1	..	..	..
Total	109	93	18	2	40	76	34	6	76	104	40	35
Q_1	125.6	109.3	108.0		120.0	109.0	112.0		140.0	118.6	135.5	
Median	161.3	127.9	133.3		175.0	146.7	138.0		212.9	146.0	167.5	
Q_3	212.5	162.2	200.0		250.0	180.0	195.0		260.0	210.0	240.6	

*These data are based on all serials purchased at Cornell in 1910 and in 1925 from the "periodical fund."

TABLE K

INTER-LIBRARY LOANS

(The number in italics is the actual number lent or borrowed in the year indicated. The numbers that follow are percentages of the number in italics)

Academic Year Ending in	CALIFORNIA		COLUMBIA		ILLINOIS		MICHIGAN		MINNESOTA		OBERLIN		OREGON		RUTGERS		VASSAR		YALE	
	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed	Lent	Borrowed
1900	.....	.....	*138*	*46*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1901	.....	.....	133.3	128.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1902	.....	.....	248.6	254.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1903	.....	.....	290.6	384.8	.....	.....	*55*	*50*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1904	.....	.....	298.6	480.4	.....	.....	203.6	196.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1905	.....	.....	318.1	469.6	*23*	*113*	145.5	120.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1906	.....	.....	200.0	500.0	230.4	91.2	192.7	72.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1907	.....	.....	253.6	289.1	234.8	46.0	298.2	54.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*142*	*52*
1908	.....	.....	217.4	223.9	52.2	98.2	181.8	100.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	125.4	84.6
1909	*219*	*67*	238.4	293.5	87.0	105.3	243.6	204.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	*40*	138.7	175.0
1910	102.7	107.5	165.9	471.7	187.0	117.7	189.1	198.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	185.0	147.2	182.7
1911	95.4	119.4	201.4	832.6	121.7	140.7	285.5	240.0	.....	.....	.....	.....	.....	.....	.....	.....	no	205.0	147.2	261.5
1912	63.9	137.3	289.9	1347.8	513.0	215.0	220.0	192.0	.....	.....	.....	.....	.....	.....	.....	.....	count	282.5	156.3	167.3
1913	86.3	195.5	362.3	1843.5	608.7	169.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	kept	210.0	172.5	265.4
1914	144.7	149.3	344.9	1576.1	539.1	185.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	360.0	168.3	213.5
1915	176.7	253.7	366.7	2013.0	873.9	360.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	*44*	.....	217.5	196.5	288.5
1916	254.8	316.4	530.4	2500.0	1756.5	301.8	690.9	320.0	.....	.....	.....	.....	*193*	.....	.....	127.3	.....	237.5	312.7	259.6
1917	372.1	252.2	308.0	652.2	1387.0	207.1	.....	.....	.....	.....	.....	.....	86.0	.....	.....	163.6	.....	382.5	.....	.....
1918	296.8	191.0	362.3	706.5	487.0	85.8	.....	.....	.....	.....	.....	.....	69.4	*75*	.....	111.4	.....	372.5	.....	.....
1919	271.2	206.0	489.1	1413.0	1120.0	204.4	758.2	594.0	.....	.....	.....	.....	92.7	85.3	.....	147.7	.....	257.5	.....	.....
1920	207.8	356.7	253.6	543.5	1782.6	241.6	963.6	444.0	.....	.....	.....	.....	103.6	80.0	*4*	222.7	.....	337.5	253.5	.....
1921	218.7	235.8	217.4	413.0	2160.9	215.9	1358.2	648.0	*45*	*196*	.....	.....	139.4	192.0	175.0	234.1	.....	497.5	238.0	309.6
1922	245.7	335.8	223.2	330.4	1878.3	227.4	1630.9	452.0	368.9	120.9	*23*	*30*	131.1	205.3	75.0	213.6	.....	372.5	216.2	117.3
1923	345.2	206.0	.....	.....	2117.4	322.1	2001.8	470.0	362.2	161.7	108.7	126.7	174.1	272.0	125.0	202.3	.....	127.5	285.2	436.5
1924	405.9	252.2	170.3	.....	2213.0	254.9	1960.0	556.0	340.0	149.5	121.7	150.0	194.3	284.0	100.0	159.1	.....	300.0	264.1	392.3
1925	490.4	279.1	392.8	430.4	2473.9	254.9	1847.3	698.0	606.7	150.0	130.4	173.3	167.9	377.3	150.0	197.7	.....	305.0	345.8	630.8

TABLE L

USE OF EXTENSION SERVICE OFF THE CAMPUS

Academic Year Ending in	MICHIGAN				NORTH CAROLINA				OREGON			
	PACKAGES LENT		PAMPHLETS LENT		PACKAGES LENT		PAMPHLETS LENT*		PACKAGES LENT		PAMPHLETS LENT*	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1914	...	.....	.....	.....	.....	.....	542	100.0	...	.....	.....	.....
1915	...	.....	.....	.....	.....	.....	1,196	220.7	578	100.0	1,703	100.0
1916	...	.....	.....	.....	.....	.....	1,700	313.7	695	120.2	2,224	130.6
1917	400	100.0	4,500	100.0	.....	.....	1,485	274.0	675	116.8	2,236	131.3
1918	525	131.3	6,000	133.3	.....	.....	1,360	250.9	613	106.1	1,782	104.6
1919	1,026	256.5	15,000	333.3	.....	.....	3,219	593.9	793	137.2	2,552	149.9
1920	2,500	625.0	30,000	666.7	.....	.....	3,722	686.7	867	150.0	3,061	179.7
1921	2,900	725.0	22,000	488.9	.....	.....	5,247	968.1	868	150.2	2,692	158.1
1922	3,355	838.8	31,543	701.0	.....	.....	12,166	2244.6	920	159.2	2,259	132.6
1923	4,220	1055.0	38,543	856.5	3,834	100.0	13,141	2424.5	864	149.5	2,557	150.1
1924	5,316	1329.0	45,991	1022.0	5,343	139.4	21,469	3961.1	948	164.0	2,455	144.2
1925	6,055	1513.8	46,957	1043.5	8,739	227.9	32,109	5924.2	828	143.3	2,380	139.8

*Includes books.

TABLE M

RELATIVE PROPORTION OF BOOKS PURCHASED AND OF BOOKS DONATED TO LIBRARIES

Institutions	1901–05		1906–10		1911–15		1916–20		1921–25		For Time Shown	
	PER CENT		PER CENT		PER CENT		PER CENT		PER CENT		PER CENT	
	Purchased	Donated	Purchased	Donated	Purchased	Donated	Purchased	Donated	Purchased	Donated	Purchased	Donated
Illinois.	75.3	24.7	86.8	13.2	82.9	17.1	86.2	13.8	84.9	15.1	84.5	15.5
**Michigan	....	....	68.0	32.0	72.6	27.4	77.2	22.8	85.6	14.4	77.5	22.5
North Carolina	48.0	52.0	49.5	50.5	43.3	56.7	64.9	35.1	68.6	31.4	60.8	39.2
**Oberlin	31.1	68.9	42.1	57.9	35.0	65.0	35.6	64.4	34.2	65.8	35.7	64.3
***Oregon	....	....	82.3*	17.7*	57.5	42.5	61.2	38.8	67.3	32.7	65.3	34.7
Stanford	74.3	25.7	84.5	15.5	89.0	11.0	82.2	17.8	72.5	27.5	81.6	18.4
**Tulane.	....	....	....	....	34.0	66.0	41.6	58.4	65.6	34.4	48.5	51.5
Vassar.	47.6	52.4	54.3	45.7	67.2	32.8	71.1	28.9	66.1	33.9	62.7	37.3
Yale.	32.8	67.2	40.8	59.2	34.7	65.3	32.0	68.0	36.1	63.9	35.4	64.6

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*For 1908–10 only.

**Did not indicate whether pamphlets are included or not—of the others, Yale is the only one that included them.

***Accessioned books only.

TABLE N

GROWTH IN GRADUATE WORK IN COLLEGES AND PROFESSIONAL SCHOOLS REPORTING TO THE U. S. BUREAU OF EDUCATION*

	YEAR				Percentage that Number in 1922 is of Number in 1900
	1900	1910	1920	1922	
Enrollment of Graduate Students	5,831	9,370	15,612	23,016	394.7
Number of Earned Graduate Degrees Conferred	1,952	2,541	4,853	7,327	375.4
Number Receiving the Ph.D. Degree	342	409	532	883	258.2

*Biennial Survey of Education, 1920-22. Report of the U. S. Commissioner of Education.

TABLE O

GROWTH IN SIZE OF FACULTIES IN COLLEGES AND PROFESSIONAL SCHOOLS REPORTING TO THE U. S. BUREAU OF EDUCATION*

	YEAR				Percentage that Number in 1922 is of Number in 1900
	1900	1910	1920	1922	
Number of Faculty Members in:					
Collegiate Institutions	11,219	17,281	28,113	33,109	295.1
Professional Schools	8,277	13,285	10,915	12,256	148.1

*Biennial Survey of Education, 1920-22. Report of the U. S. Commissioner of Education.

TABLE P

COLLEGE AND SCHOOL LIBRARIES, 1925†

Institutions	Number of College or School Libraries	Volumes		Books Purchased by:			Books Cataloged by:		Location of Cards			Hours Open Daily		Paid Assistant in Charge		Helpers on Budget of:		Helpers Chosen by:	
		Total	Range	General Library	College or School Library	Gifts	General Library	College or School Library	General Library Only	College or School Library Only	Both Libraries	Range	Number Open 10 Hours or More	Yes	No	General Library	College or School	General Library	College or School
Ames	1	1,000	. . .	1	. .	. .	1	. .	. .	. .	1	8	0	1	. .	. .	1	joint	ly–1
California	5	39,354	990–28,643	5	. .	. .	joint 4	ly–1 . .	1	. .	4	6–15	2	5	. .	1	4	1	4
Cincinnati	5	32,236	1,000–14,000	2	1	2	no o 2	ne–2 1	no ca . .	rds–2 1	2	7–14	3	5	. .	2	3	2	3
Cornell	8	122,770	962–59,957	6	2	. .	6	2	5	1	2	7–15	3	8	. .	. .	8	. .	8
Illinois	4	62,600	3,600–35,000	4	. .	. .	4	. .	. .	. .	4	12	4	4	. .	2	2	2	2
Iowa (Univ.)	9	97,067	100–44,586	5	4	. .	no o 5	ne–1 3	. .	no ca 3	rds–1 5	6–14	7	8	1	joint 2	ly–1 5	joint 2	ly–2 4
Michigan	4	130,423	4,164–66,242	3	1	. .	3	1	. .	. .	4	7½–14	3	4	. .	3	1	3	1
Minnesota	6	117,124	3,624–41,750	4	2	. .	2	4	2	. .	4	1–14	5	5	1	3	2	3	2
North Carolina	6	21,700	1,300–7,300	6	. .	. .	6	. .	2	1	3	2–14	4	4	2	joint	ly–1 3	1	3
Oregon	1	16,500	. . . . . .	1	. .	. .	1	. .	. .	. .	1	12	1	1	. .	. .	1	. .	1
Rutgers	2	*36,600	7,000–29,600	1	1	. .	1	1	. .	. .	2	9½–13	1	2	. .	joint . .	ly–1 1	joint 1	ly–1 . .
Stanford	2	40,000	10,000–30,000	1	. .	1	. .	2	. .	2**	. .	14	2	2	. .	. .	2	. .	2
Tulane	2	2,610	652–1,958	1	1	. .	2	. .	2	. .	. .	8½–13½	1	. .	2	. .	. .	. .	. .
Yale	6	123,450	2,365–73,900	. .	6	. .	. .	6	. .	1	5	5¾–14½	4	6	. .	. .	6	. .	6

†No data are given for Columbia. No college or school libraries at Oberlin and Vassar.

*20,000 uncataloged.

**In law some titles of general interest are also in general library.

TABLE Q

DEPARTMENTAL LIBRARIES, 1925†

Institutions	Number of Departmental Libraries	Volumes		Books Purchased by:			Books Cataloged by		Location of Cards			Hours Open Daily		Paid Assistant in Charge		Helpers on Budget of:		Helpers Chosen by:	
		Total	Range	General Library	Departmental Library	Gifts	General Library	Departmental Library	General Library Only	Departmental Library Only	Both Libraries	Range	Number Open 10 Hours or More	Yes	No	General Library	Department	General Library	Department
Ames	1‡	1,500	....	1	..	..	1	..	..	..	1	8	0	..	1	..	..	..	..
California	10*	58,368	922–41,775	10	..	..	joint 7	ly–2 1	4	..	6	0–14	3	7	3	..	7	..	7
Cincinnati	7	16,770	1,035–6,859	7	..	..	7	..	..	..	7	4– 7	0	4	3	2	2	1	4
Cornell	4	15,879	2,001–5,862	4	..	..	4	..	2	..	2	**–14	3	3	1	..	3	..	3
Illinois	10	180,500	6,000–27,000	10	..	..	10	..	..	..	10	12	10	10	..	10	..	10	..
Iowa (Univ.)	13	64,582	1,363–9,365	12	..	1	no o 11	ne–2 ..	n 2	o cards ..	–2 9	0–11	3	8	5	8	..	8	..
Michigan	5	36,951	2,273–18,127	5	..	..	5	..	..	..	5	7½–11½	4	5	..	5	..	5	..
Minnesota	2	8,000	3,000–5,000	2	..	..	2	..	1	..	1	6– 8½	0	1	1	..	1	..	1
North Carolina	5	11,156	1,300–4,500	5	..	..	5	..	1	..	4	10–14	5	4	1	..	4	..	4
Oberlin	5	7,300	800–3,000	bo 3	th–2 ..	..	5	..	..	..	5	8–14½	3	1	4	..	1	..	1
Stanford	2	17,000	5,000–12,000	2	..	..	2	..	2	..	..	8–12	1	2	..	..	2	join	tly–2
Tulane	3	13,468	868–10,000	2	1	..	3	..	..	..	3	8– 8½	0	..	3	..	..	..	..
Vassar	10	......	....	10	..	..	10	..	8	..	2	8½	0	..	10	..	..	..	..
Yale	22***	130,617	600–32,918	joint 3	ly–3 16	..	no o joint 7	ne–3 ly–2 10	1 n	o cards 9	–3 9	0–14½	8	6	16	speci dowm ..	al en- ent–1 5	..	6

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†No data are given for Columbia and Oregon. No departmental libraries at Rutgers.
‡As of March, 1927.
*California has 72 departmental libraries. Data for the 10 largest are given here.
**Medicine. Open Mondays and Saturdays from 9–11 A.M., Wenesdays from 9 A.M.–12:30 P.M., Mondays 2–3:30 P.M.
***Includes more important collections outside of the general library.
Cases in which the departmental libraries are indicated as not being open, admission is by means of keys only.

TABLE R

AVERAGE SALARIES PAID IN CERTAIN POSITIONS IN FIFTEEN INSTITUTIONS* FOR THE ACADEMIC YEAR ENDING IN JUNE, 1925

Positions	INSTITUTIONS														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Deans of Colleges . .	$10,111	$7,955	$7,547	$7,250	$7,160	$7,050	$7,018	$6,667	$6,472	$6,208	$6,071	$5,250	$5,000	$4,418	.....
Directors of Schools. .	.....	.....	6,000	5,750	.....	.....	6,571	5,333	5,333	5,250	3,700	4,550	.....	.....	.....
Full Professors. . . .	5,684	6,600	5,112	4,229	3,750	4,983	5,176	4,502	4,161	4,434	4,833	4,426	4,227	3,376**	$4,458
Librarian	8,000	.....	6,000	5,000	3,600	5,000	5,000	4,000	5,500	5,000	3,500	5,000	3,500	3,600**	1,800
Associate Professors .	4,411	4,663	4,020	3,327	3,150	3,605	3,718	.....	2,970	3,058	3,307	3,294	3,105	2,770**	3,550
Associate Librarian. .	3,600	.....	.....	.....	.....	.....	3,900	.....	.....	.....	.....	3,600	2,900	.....	.....
Assistant Professors .	2,877	3,431	2,895	2,752	2,550	2,840	3,068	2,966	2,588	2,515	2,630	2,521	2,420	2,019	3,000
Assistant Librarian . .	.....	.....	.....	.....	.....	3,500	.....	3,000	.....	.....	.....	.....	.....	.....	.....
Heads of Departments in Library	2,363	3,500	2,267	2,775	.....	2,400	2,700	2,025	1,875	2,270	1,800	1,843	.....	.....	.....

*Ames, California, Cincinnati, Cornell, Illinois, Iowa (Univ.), Michigan, Minnesota, North Carolina, Oregon, Rutgers, Stanford, Tulane, Vassar, and Yale.
**Data are for 1924.

TABLE S

AVERAGE SALARIES PAID TO FULL PROFESSORS AND TO LIBRARIANS IN ELEVEN INSTITUTIONS†

Academic Year Ending in	Average Salary Paid	INSTITUTIONS											Average of All Institutions
		C	D	F	G	H	I	J	K	L	N	O	
1910	Full Professors	$ 3,075	.....	$ 3,535	$ 3,450	$ 3,156	$ 2,020	.....	$ 2,980	$ 1,858	$ 1,989	$ 2,792	$ 2,762
	Librarian	3,000	.....	3,000	2,700	3,000	1,900	$1,100*	1,525	1,500	1,800	900	2,147
1911	Full Professors	3,200	.....	3,610	3,541	3,045	2,155	2,383	2,833	2,094	1,989	2,792	2,764
	Librarian	3,000	.....	3,100	3,000	3,000	2,000	1,100	1,633	1,600	1,800	900	2,113
1912	Full Professors	2,842	.....	3,527	3,596	3,116	2,468	2,600	2,920	2,222	2,013	2,705	2,801
	Librarian	3,000	.....	3,200	3,000	3,000	2,000	1,200	1,700	1,600	1,800	900	2,140
1913	Full Professors	2,883	$ 2,767	3,527	3,715	3,240	2,347	2,600	3,060	2,280	2,303	2,695	2,856
	Librarian	3,000	3,000	3,200	3,000	3,500	2,000	1,200	1,700	2,000	1,800	950	2,305
1914	Full Professors	3,637	2,922	3,450	3,720	3,274	2,495	2,779	3,180	2,409	2,340	2,463	2,970
	Librarian	3,500	3,000	3,400	3,000	3,500	1,500	1,300	1,700	2,000	2,100	950	2,359
1915	Full Professors	3,637	2,946	3,558	3,828	3,295	2,663	2,744	3,460	2,300	2,385	2,579	3,036
	Librarian	3,500	3,250	3,500	3,000	3,500	1,500	1,300	1,700	2,250	2,100	950	2,414
1916	Full Professors	3,603	2,958	3,750	3,827	3,243	2,683	2,975*	3,670	2,340	2,162	2,381	3,062
	Librarian	3,800	3,250	3,500	3,000	3,500	1,600	Vacant	1,800	2,250	2,100	950	2,575
1917	Full Professors	3,758	3,007	3,797	3,872	3,240	2,352	3,019*	3,670	2,340	2,061	2,162	3,026
	Librarian	3,800	3,250	3,500	3,000	3,500	1,600	Vacant	1,800	2,250	2,100	950	2,575
1918	Full Professors	3,612	3,119	3,837	3,909	3,270	2,627	3,135*	3,540	2,556	2,443	2,290	3,120
	Librarian	4,000	3,500	3,500	3,000	3,500	1,600	Vacant	2,000	2,500	2,100	960	2,666
1919	Full Professors	3,633	3,125	3,742	3,903	3,372	3,038	3,389*	3,283	2,855	2,655	2,280	3,189
	Librarian	4,300	3,500	3,500	3,000	3,500	1,800	Vacant	2,100	2,900	2,400	960	2,796
1920	Full Professors	3,767	3,610	3,903	3,929	3,537	3,347	3,568*	3,350	3,195	2,955	2,403	3,400
	Librarian	4,500	4,000	4,500	3,600	3,500	2,000	Vacant	2,300	3,500	2,750	1,000	3,165
1921	Full Professors	3,962	3,703	4,664	4,671	4,162	3,789	3,936*	3,911	4,115	3,344	3,957	4,028
	Librarian	5,000	4,000	4,550	4,500	4,000	2,400	Vacant	2,500	5,000	3,600	1,500	3,705
1922	Full Professors	4,717	4,150	4,754	4,748	4,442	4,036	4,296*	4,422	4,367	3,358	4,413	4,341
	Librarian	5,000	4,500	4,600	4,500	4,000	2,400	Vacant	2,500	5,000	3,600	1,500	3,760
1923	Full Professors	4,99	4,168	5,078	5,062	4,444	4,029	4,489	3,964	4,400	3,345	4,303	4,389
	Librarian	5,00	4,500	5,000	5,000	4,000	2,400	5,000	2,500	5,000	3,600	1,620	3,965
1924	Full Professors	5,130	4,034	4,974	5,165	4,498	4,447	4,384	4,305	4,250	3,376	4,458	4,456
	Librarian	5,500	4,500	5,000	5,000	4,000	5,500	5,000	3,000	5,000	3,600	1,620	4,338
1925	Full Professors	5.112	4.229	4.983	5,176	4,502	4,161	4.434	4.833	4,426	.....	4,458	4,631
	Librarian	6,000	5,000	5,000	5,000	4,000	5,500	5,000	3,500	5,000	3,600*	1,800	4.580

†Ames, California, Cincinnati, Cornell, Illinois, Iowa (Univ.), Minnesota, North Carolina, Oregon, Stanford, and Tulane.
*Not included in average since data for both positions are not available for that year.

TABLE T

AVERAGE SALARIES PAID TO ASSISTANT PROFESSORS AND TO HEADS OF DEPARTMENTS IN LIBRARIES OF EIGHT INSTITUTIONS†

Academic Year Ending in	Average Salary Paid	INSTITUTIONS								Average of All Institutions
		C	D	F	G	H	I	J	L	
1910	Assistant Professors	$1,957	.....	$1,790	$1,750	$1,761	$1,443	.....	.....	1,740
	Heads of Departments in Library	1,056	.....	1,050	1,425	1,083	837	.....	$ 650*	1,090
1911	Assistant Professors	2,110	.....	1,800	1,840	1,667	1,363	$1,375*	.....	1,756
	Heads of Departments in Library	1,044	.....	1,065	1,360	1,083	1,000	.....	650*	1,110
1912	Assistant Professors	2,225	.....	1,725	1,868	1,689	1,618	1,500	.....	1,771
	Heads of Departments in Library	1,172	.....	1,020	1,475	1,167	1,000	900	750*	1,122
1913	Assistant Professors	2,219	$1,692	1,723	1,894	1,730	1,672	1,545	.....	1,782
	Heads of Departments in Library	1,076	1,140	1,100	1,550	1,200	1,000	900	800*	1,138
1914	Assistant Professors	2,382	1,885	1,675	1,925	1,758	1,786	1,529	1,250	1,774
	Heads of Departments in Library	1,140	1,212	1,140	1,662	1,233	1,000	1,092	705	1,148
1915	Assistant Professors	2,391	1,787	1,904	1,942	1,757	1,730	1,542	1,250	1,788
	Heads of Departments in Library	1,100	1,152	1,120	1,690	1,233	1,000	1,092	730	1,140
1916	Assistant Professors	2,433	1,659	1,943	1,997	1,766	1,761	1,555	1,350	1,808
	Heads of Departments in Library	1,300	1,212	1,300	1,625	1,200	1,100	1,233	775	1,218
1917	Assistant Professors	2,485	1,705	2,196	2,023	1,724	1,722	1,515	1,350*	1,910
	Heads of Departments in Library	1,700	1,176	1,300	1,760	1,275	1,100	1,233	.....	1,363
1918	Assistant Professors	2,368	1,815	2,121	2,082	1,720	1,714	1,621*	.....	1,970
	Heads of Departments in Library	1,700	1,350	1,300	1,820	1,475	1,100	.....	850*	1,458
1919	Assistant Professors	2,321	1,839	2,207	2,101	1,737	1,973	1,844*	.....	2,030
	Heads of Departments in Library	1,471	1,450	1,400	1,960	1,550	1,120	.....	1,067*	1,492
1920	Assistant Professors	2,356	2,110	2,325	2,318	2,153	1,874	2,021*	1,863	2,143
	Heads of Departments in Library	1,729	1,875	1,550	1,875	1,550	1,333	.....	1,136	1,578
1921	Assistant Professors	2,674	2,143	2,605	2,818	2,670	2,302	2,058*	2,610	2,546
	Heads of Departments in Library	1,871	2,050	2,000	2,400	1,850	1,700	.....	1,300	1,882
1922	Assistant Professors	3,030	2,452	2,685	2,889	2,762	2,509	2,329	2,620	2,660
	Heads of Departments in Library	2,114	2,625	2,063	2,400	1,875	1,850	1,940	1,620	2,061
1923	Assistant Professors	2,983	2,514	2,770	3,027	2,813	2,289	2,293	2,525	2,652
	Heads of Departments in Library	2,114	2,625	2,300	2,475	2,000	1,900	1,940	1,640	2,124
1924	Assistant Professors	3,119	2,514	2,840	3,060	2,873	2,543	2,457	2,500	2,738
	Heads of Departments in Library	2,267	2,625	2,300	2,625	2,025	1,988	2,160	1,767	2,220
1925	Assistant Professors	2,895	2,752	2,840	3,068	2,966	2,588	2,515	2,521	2,768
	Heads of Departments in Library	2,267	2,775	2,400	2,700	2,025	1,875	2,270	1,843	2,269

†Ames, California, Cornell, Illinois, Iowa (Univ.), Minnesota, North Carolina, and Stanford.
*Not included in average since data for both positions are not available for that year.

TABLE U

SIZE OF FULL-TIME LIBRARY STAFFS AND NUMBERS WHO HAVE LEFT SERVICE EACH YEAR†

Academic Year Ending in	AMES[1]		CALIFORNIA		CINCINNATI[1]		CORNELL[2]		ILLINOIS[2]		IOWA (Univ.)[1]		MICHIGAN[1]		MINNESOTA[1]	
	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service
1900	2	..	..	..	2	0	..	..	5	..	3	..	..	..	..	..
1901	2	..	..	..	2	0	..	..	6	..	3	..	..	..	..	..
1902	2	..	..	..	2	0	..	..	8	..	3	..	..	..	..	..
1903	2	..	..	..	6	0	..	..	..	..	4	..	..	..	..	..
1904	2	..	..	..	5	2	..	..	..	..	3	..	..	..	..	..
1905	2	..	..	..	4	1	..	..	14	..	4	2	..	..	..	..
1906	2	..	..	..	3	2	..	..	15	..	6	..	..	..	..	..
1907	3	..	..	..	3	0	..	..	15	..	5	..	..	..	..	..
1908	3	..	..	..	4	3	..	..	19	..	5	..	..	..	..	..
1909	5	..	..	..	3	2	..	..	25	..	5	3	..	..	..	..
1910	5	..	..	..	3	0	14	0	27	..	7	4	..	..	..	..
1911	7	..	20	4	3	0	15	1	35	..	10	3	..	..	..	..
1912	7	..	25	3	3	0	16	0	34	..	10	2	..	..	..	..
1913	7	..	28	9	3	0	16	0	41	..	10	1	..	..	..	..
1914	8	..	31	8	3	0	17	0	37	..	10	1	..	..	17	2
1915	8	..	37	8	3	0	17	0	40	..	10	0	..	..	19	1
1916	11	..	32	9	3	0	17	1	43	..	11	0	31	3	19	5
1917	11	..	45	6	4	0	18	0	45	..	11	0	32	7	22	4
1918	12	..	34	12	4	0	18	1	50	9	11	2	41	6	23	10
1919	14	..	33	12	8	0	18	0	44	10	11	2	41	10	23	10
1920	15	8	27	13	6	5	18	0	45	9	12	3	43	12	22	8
1921	15	7	29	10	8	0	18	1	48	8	12	2	58	7	30	11
1922	16	5	33	7	7	2	18	1	45	13	13	4	61	13	34	12
1923	20	11	34	7	10	1	18	1	48	9	13	6	69	8	37	3
1924	20	12	37	6	12	3	20	1	45	10	18	8	71	17	38	9
1925	27	13	40	6	15	3	19	0	47	10	27	6	77	22	39	10
AveragePercentage Left Service 1921–1925	48.2		21.5		16.7		4.4		21.6		32.1		24.2		21.1	

†No data are given for Columbia.

[1] Includes all full-time workers.

Includes all full-time workers needing technical library training.

TABLE U—*Continued*

SIZE OF FULL-TIME LIBRARY STAFFS AND NUMBERS WHO HAVE LEFT SERVICE EACH YEAR

Academic Year Ending in	NORTH CAROLINA[1]		OBERLIN[1]		OREGON[1]		RUTGERS[1]		STANFORD		TULANE		VASSAR[3]		YALE[1]	
	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service	Library Staff	Left Service
1900	1	0	4	0	1	..	..	..	4	..	2	..	3	0	..	..
1901	1	1	4	2	1	..	..	..	8	1	2	..	3	0	..	..
1902	1	0	6	1	1	..	..	..	8	2	2	..	3	0	..	..
1903	1	0	5	1	1	..	..	..	9	1	2	..	3	0	..	..
1904	1	0	4	1	1	..	..	..	10	3	2	..	3	0	..	..
1905	1	0	7	1	1	..	..	..	10	4	2	..	3	0	..	..
1906	1	0	7	0	1	..	..	..	11	3	2	..	4	1	16	1
1907	1	0	7	0	2	..	..	..	11	0	2	..	4	1	19	..
1908	2	0	7	0	2	1	..	..	19	6	2	..	5	0	30	..
1909	2	0	10	1	3	0	2	0	19	7	2	..	5	2	36	2
1910	2	0	10	1	3	0	2	0	19	5	2	..	5	2	36	6
1911	2	0	11	2	4	0	2	1	19	2	2	..	6	1	38	2
1912	2	0	9	0	4	1	4	0	19	9	2	..	7	2	38	2
1913	2	0	11	3	5	0	4	0	20	7	2	..	7	2	41	9
1914	3	0	10	1	5	0	4	0	19	6	2	..	7	0	41	4
1915	3	1	11	4	6	0	5	0	19	7	2	..	7	1	40	5
1916	3	0	13	3	7	1	5	1	20	3	2	..	8	1	40	2
1917	3	1	12	2	9	2	6	1	20	7	2	..	8	2	39	7
1918	5	0	11	2	9	2	5	0	18	4	2	..	8	2	36	11
1919	4	1	15	5	9	0	5	0	19	4	2	..	8	1	40	8
1920	6	0	13	1	10	1	5	0	20	4	2	..	8	1	45	5
1921	7	0	14	4	12	2	5	1	20	6	2	..	9	2	49	5
1922	8	0	14	4	13	2	6	1	24	8	2	..	10	1	53	8
1923	9	3	12	1	14	3	6	0	23	8	3	..	10	2	53	4
1924	13	2	13	5	15	1	8	0	24	8	3	..	10	5	54	4
1925	14	2	14	3	17	5	8	1	25	8	4	..	10	2	54	2
Average Percentage Left Service 1921–1925	12.6		25.1		17.9		9.8		32.7				24.4		8.8	

[1] Includes all full-time workers.
[2] Includes all full-time workers needing technical library training.
[3] Includes untrained college graduates but not other untrained helpers.

TABLE V

NUMBER OF YEARS THAT PRESENT TECHNICAL STAFFS HAVE BEEN IN THE SERVICE OF THE LIBRARIES OF FIFTEEN* INSTITUTIONS.**

Years of Service	Number
1	97
2	49
3	64
4	30
5	26
6	20
7	7
8	21
9	11
10	10
11	8
12	7
13	5
14	11
15	10
16	5
17	8
18	2
19	2
20	5
21	2
22	3
23	2
24	2
25	1
26	3
27	0
28	1
29	0
30	0
31	0
32	1
33	2
34	0
35	1
36	0
37	0
38	1
39	0
40	1
/	
45	1
Total	419
Q_1	2.2
Median	4.0
Q_3	9.0

---

*Ames, California, Cincinnati, Cornell, Illinois, Iowa (Univ.), Michigan, Minnesota, North Carolina, Oberlin, Oregon, Rutgers, Stanford, Vassar, and Yale.

**Data are as of March, 1927.

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PRINTED BY
R. R. DONNELLEY & SONS COMPANY
AT THE LAKESIDE PRESS
CHICAGO